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## CLINICS.

### Clinical Lectures.

#### ON AMYLOID KIDNEY.

A CLINICAL LECTURE DELIVERED AT THE GOOD SAMARITAN HOSPITAL,  
CINCINNATI.

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GENTLEMEN: You may almost read in the face of this little girl that she has chronic disease of the kidneys. The partial paraplegia which you see still exists, shows that she has also some lesion of the spinal cord, and as nearly all such lesions at this age depend upon caries of the vertebræ, that is, upon Pott's disease, you will recognize that she is the victim also of bone tuberculosis. For although we shall have a clear history of an accident in this case, you are aware of the fact that trauma alone is not sufficient to explain or account for the vertebral caries without the previous presence of tubercle in the blood. What the trauma does is simply to determine the deposition or the localization of the tuberculosis. But we will leave this subject to the surgeons, and take up the complication which has presented itself in the course of her disease; a new catastrophe, so to speak, grave enough in its import, to divert to it our whole attention.

One of the internes, Dr. French, who has had immediate charge of the case will first read us the main outlines of its history.

"Mary K., æt. 15 years, native of Philadelphia, resided before admission to the hospital, on Front Street amidst bad hygienic surroundings.

The family history is indefinite and unimportant. No hereditary predisposition to disease can be traced, and her health has always been excellent previous to the accident which led to her present illness.

On Nov. 20, 1879, she fell through a hatchway from the second floor to the cellar of an apple-butter manufactory where she was employed and alighted in a sitting posture. When admitted to the house she suffered from complete paraplegia with retention of urine. During the first six weeks, the catheter had to be used regularly in the morning, in the evening, and at midnight. Then the vesical paralysis suddenly disappeared. At the same time she began to recover from the paraplegia and continued to improve so rapidly that on Jan. 1, 1880, she was able to stand.

About ten days after her admission, there was discovered a prominent knuckle-like protrusion in the lower dorsal region of the spine and a plaster-of-Paris jacket was applied. This treatment was continued until shortly before Christmas last, when the vertebræ seemed to have solidified, and she felt comfortable without artificial support. Strengthened as she was by the jackets, she was in a few weeks after the first application of them, able to walk. The motion of her limbs was carried on, however, wholly by the muscles of the gluteal region and thigh as the muscles of the leg and foot are still beyond her control. In order to maintain the equilibrium of her body, she has to partially flex her knees and she walks by giving her body a swinging motion from side to side and by dragging her feet with the toes turned outward.

The improvement of sensation in the paralyzed limbs has kept pace with the improvement of voluntary motion. Since the middle of last summer the sensation above the knees has been good, but below the knees, from two inches downward, the feeling is so obtunded that the prick of a pin could not be noticed, and the nail of a toe was removed without inflicting pain. At present the tactile sense is a little more acute as far down as the ankles. She has at no time had involuntary contractions of any of the affected muscles.

At various times during her illness, she has suffered from dysentery and diarrhœa; indeed her bowels could never be said to have acted properly. About the 15th of December last, signs of suppuration were noticed about the nail of the great toe of her left foot. On the 20th, the toe was more than twice its natural size, and a small quantity of pus was evacuated by incision. The discharge then continued several weeks until the second phalanx was removed. The foot became swollen and œdematous. About ten days later she complained of pains in her sides, in the lumbar region—sometimes darting upward. Then there was noticed a fulness of the face, the bridge of the nose seemed flattened, and her lower eyelids were puffed. Upon interrogation it was found that she had to micturate very frequently, passing very small quantities with great pain. Her skin now had a pallid hue, she became very anæmic, lost her appetite, and was easily nauseated. Auscultation and percussion revealed no lesion of the heart or lungs.

Examination of urine resulted as follows: sp. gr. 1.012; reaction neutral; colour, deep red; odour, strong; blood and albumen present in small quantities. The microscope showed red and white blood-corpuscles, small round epithelium cells and one or two granular casts.

From this time until the 15th, the patient's condition grew worse, both feet and legs becoming œdematous. Then a profuse diarrhœa set in which lasted three days, whereupon the dropsy rapidly subsided. Examination showed no change in the urine except a slight increase in the specific gravity.

During the last two weeks the only change worthy of mention has been the occurrence of obstinate and frequent vomiting.

Urinalysis to-day with the following result. Quantity in 24 hours, 20 ounces; specific gravity 1.010; colour dark red; odour strong; reaction neutral; albumen, less than 1 per cent.; blood, earthy phosphates, pus, colouring matter normal. Under the microscope are seen numerous white blood-corpuscles, round and pavement epithelium, pale hyaline casts, and an occasional granular cast. In fresh specimens red blood-corpuscles can be seen. Examining the small quantities as they are passed, the colour is found to vary from a very pale to a deep red, but it is never clear. The

amount of albumen varies also in different specimens from a mere trace to about one per cent."

I remarked to you, at the start, that you might read in the face of this little girl something of the nature of her disease. I had reference then to her almost unearthly pallor, and to the still evident puffiness of the face. If, now, you will simply recall the nature of the disease which preceded, and which probably produced the kidney affection, you will recognize also its form. The appearance of the patient, the history of the disease, above all, the condition of the urine, speak for amyloid degeneration of the kidneys.

Fatty degeneration we know very well as the commonest mode of the death of any cell. With calcareous degeneration we are as fully familiar in the coats of the larger arteries. Pathologists have made us familiar with these tissue changes ever since morbid anatomy was especially studied. But amyloid degeneration is something new. Our definite knowledge of it dates from our own decade, and though we know of it already what it is, and when it appears, it must remain for another decade to inform us exactly why it occurs.

As might have been premised almost, our first knowledge of the amyloid process came from the study of the liver. The changes it produces in this organ are so gross, so palpable we might say, in life, as to have early attracted the attention of the pathological anatomists. So, some vague mention is made of it in the old writings of Stahl and Boerhaave, but their descriptions included all kinds of "Infarctions, Obstructions, and Engorgements" as they called them; conditions all supposed to be due to an accumulation of "altered, thickened, or corrupted blood within the bloodvessels."

Budd says of Laennec, who noticed everything, that he noticed also the "waxy" liver which he, however, considered to be a variety of fatty liver. The first mention of the condition with a distinct description was made by Antoine Portal, in 1813, who says that he "found the liver excessively voluminous, reduced to a substance like lard, both in colour and consistence, in the body of an old woman who had various exostoses and ulcerations about the genital organs." Nothing but unimportant and isolated observations, as by Budd, Andral, Graves, were then made in the history of amyloid degeneration, until 1842, when Rokitsansky cleared up the field, so to speak, by showing that amyloid degeneration was a general process with local expression in different organs, and that it stood in close genetic relations to certain cachexiæ. Rokitsansky was the first to describe amyloid degeneration of the kidney. Gairdner and Sanders next, 1854, demonstrated that the waxy condition of the liver and kidney also presented in the spleen, while Virchow and Meckel almost at the same time, 1853, had already discovered the iodine and sulphuric acid reaction by which we are enabled to distinguish amyloid matter in any organ, at any time. This reaction, it was, by the way, which gave it its name. For starch is also coloured, as everybody knows, by free iodine. The coloration of amyloid matter is not blue like starch, but violet, deepening to mahogany. So Virchow called it matter like starch or amyloid. Meckel, however, was not willing to surrender the term "lardaceous," or, more strictly, "bacon-like" (*speckartig*). But Meckel fell into an error too, for he believed it due to the development of cholesterine. Now we know of amyloid matter, that it is neither starch nor fat, but is a pure albuminous principle, and for this knowledge we are indebted to Friedreich and Kekulé, 1860.

After the nature of amyloid matter had been decided, the next point of interest was to determine whether it was a material circulating in the blood and deposited in the tissues where it was found, or whether it was a result of disintegration or retrograde metamorphosis of the tissue itself, in other words, whether it was a mere infiltration, or a true degeneration.

What seemed to lend special support to the infiltration theory was the place of its first deposit. Virchow and Recklinghausen more especially emphasized the point that amyloid matter is first found in the walls of the bloodvessels. Moreover, it was noticed that the most vascular organs, the spleen, the liver, and the kidneys, organs which stand in the most intimate relations with the blood, are the most frequently and extensively affected. But, it was maintained, on the other hand, amyloid matter has never been found in the blood. A substance present in such quantity as to duplicate the size of the liver, at times, and quadruplicate the spleen, ought certainly to be discovered in the blood. Nor could we explain with the assumption of this view the unequal dissemination or distribution of the amyloid matter in the organs mentioned. A distinct ring of it we sometimes see in the course of an arteriole while the rest of the vessel is free. It is especially in the kidney that we find parts of the Malpighian coil thickened and blocked while blood may still circulate through unaffected parts. Moreover, amyloid matter is not infrequently found in strictly circumscribed or isolated deposits, as a purely local change, and not as a local expression of a constitutional condition. Thus (I quote from a recent article by Birch-Hirschfeld) Billroth observed two cases in which individual lymph-glands had taken on amyloid change. Hirschfeld reported an amyloid degeneration in a single mesenteric gland after a case of typhoid fever; Kyber described cases of amyloid degeneration in inflammatory neoplasms; Oettinger, Saemisch, and Leber amyloid degeneration of the sclerotic, producing hypertrophic exuberations similar to those of trachoma; Burrow a case of amyloid degeneration of a fibroid tumour of the larynx. Freidreich states that he got the amyloid reaction from the interior of old blood clots; Jürgens had the same results in thrombi of the endocardium; Virchow from the intervertebral, tracheal, and symphysial cartilages of old people; and, lastly, Zeigler describes—and these are cases of the greatest interest—amyloid tumours of the tongue and larynx that had developed in the immediate vicinity of old gummata which had run their course.

All these facts speak strongly in favour of a local change in the affected part; just such change as regards localization, as is seen in the rule in the transformations into fat and salts of lime, the so-called fatty and calcareous degenerations.

But, however the change is effected, the alterations it produces in time in the organ affected are sufficiently gross and coarse for ready recognition. We say in general terms that amyloid matter has four distinguishing characteristics, viz., a peculiar consistence (like dough or caoutchouc), a waxy lustre, a vitreous translucency, and a lack of colour. But neither the macroscopic nor microscopic appearances enable us to pronounce upon it without fear of error. The true test of amyloid matter is its reaction with iodine and sulphuric acid. The surface to be tested must be first washed free of blood, else a mistake is very easy, and then painted over with a brush dipped in an aqueous solution of free iodine. In a few minutes the amyloid matter is coloured violet or brownish-red, like the colour of mahogany. On the super-addition of sulphuric acid the mahogany colour



changes to blue. The iodide and chloride of zinc show the same reactions, as do also the iodide and chloride of lime, and methylanilin is said to distinguish itself in this reaction by colouring the amyloid parts a beautiful red, while the unaffected parts assume a bluish or violet tint.

This much we must say of amyloid degeneration, in general, and all the more are we compelled to say it, because amyloid affection of the kidneys is always only a local expression of a condition more or less universally present in the body at the time.

And now we are prepared to study the affection or complication as illustrated in the case before us. Let us take up the points, therefore, in the order presented in the history of the case. And, first, as regards age, sex, and social state. The youthful age of our patient (15) by no means excludes amyloid disease, which occurs at all ages, and even congenitally as the result of hereditary syphilis. Frerichs found among his 68 cases three under the age of 10 years, and nineteen between the ages of 10 and 20; and from Wagner's 48 cases it is seen to occur in five cases under 10, and in five between 10 and 20. The male sex is two or three times more frequently affected; a singular fact, as Frerichs justly remarks, because the diseases which induce this degeneration by no means especially affect the male sex. Tuberculosis and syphilis have no regard either for social caste, hence this affection is no respecter of persons.

The next point in the history of our case bears upon the etiology of the disease. I do not think it necessary to more than state here that amyloid degeneration is always (there are exceptions enough to make it a rule and not a law) a secondary affection. It follows, in the rule, close upon the heels of some disease attended with persistent suppuration. Dickinson, by the way, proposed a very pretty theory to account for it, based upon this fact. Pus is alkaline, as we know, he said, and the long drain of pus dealkalizes the blood, and dealkalized fibrin is amyloid matter. The scientific treatment of the condition, therefore, is the administration of the alkalis. Unfortunately for this beautiful theory, there are typical cases of amyloid degeneration unattended by suppuration. Now, although there is no evidence of tuberculosis elsewhere, in this case, I take it for granted that the vertebral caries present is an indication of that disease.

Tuberculosis is the most prolific cause of amyloid degeneration. Wagner gives the percentage of cases at 56.25, Weber at 40.55, Hoff at 67.5; but aside from this question altogether, the bone caries present in the big toe is enough to account for it in this case. Bone caries is followed by amyloid degeneration, according to Wagner, in 23 per cent. of cases, according to Weber in 38 per cent., while Hoffman admits it as a cause in 7.5 per cent. of cases.

The next points in the history of this case bear upon the affection of the kidneys.

I have already tried to impress it upon you as a good routine system in the investigation of the symptomatology of disease of the kidneys to take up the study of them as offered first by the dropsy, second by the condition of the urine, and third by the nervous system.

There is no great amount of dropsy in this case, and that is the rule in amyloid kidneys. What there is, in the rule, shows itself in the lower extremities rather than in the face, as in our case, and is due not so much to the kidney affection as to the general hydræmia of a cachexia. Indeed, we might say this of all the symptoms offered by amyloid degeneration of any organ of the body. As Bartels puts it, "the issue of the forms of

disease attended by amyloid degeneration of the kidneys depends much more upon the fundamental malady, and the simultaneous affection of other organs than it does upon the renal disease itself." Many cases of amyloid kidney show no dropsy from beginning to end. Grainger Stewart saw general dropsy only six times in one hundred cases. Oedema of the legs and ascites characterize the dropsy of amyloid kidneys; neither dependent upon obstruction in the kidneys so much as upon the general hydræmia, and portal obstruction from simultaneous affection of the liver. So, the obstinate diarrhoea and vomiting which occur in advanced cases of amyloid kidneys depend for the most part upon the block in the portal circulation, or upon amyloid degeneration of the walls of the alimentary canal. I have often seen this child start up suddenly from a sound sleep and forcibly eject from the stomach all its contents, and then quietly fall asleep again.

The quantity of urine is reduced more than one-half in our case, which is the exception and not the rule. For, in the rule, the quantity is increased above the normal, though never to the degree so characteristic of renal cirrhosis. I have often had patients with renal cirrhosis point triumphantly to a large vessel brimful of clear, limpid, urine, the accumulation of a single night, as an indication of the supposed healthy action of the kidneys. A quantity to be proud of is seldom passed from amyloid kidneys, though enough escapes to prevent the block and side outlet into the immense reservoir under the skin, as in chronic parenchymatous nephritis.

A small amount of albumen is present here, which is in accord with the rule, a few clear casts and white corpuscles, a like conformity, but also some red blood-corpuscles which is a decided exception. But we have to say of amyloid kidneys always, that this form of kidney disease is so often complicated by the others as to present the greatest variations in every respect of them all. Our endeavour is rather to ascertain which form predominates, than exclusively prevails.

Symptoms on the part of the nervous system, so frequent in the acute and chronic parenchymatous forms, as well as in renal cirrhosis, are distinguished by their absence in amyloid kidneys. Beyond a recent tendency to sopor, this child has shown no signs of uræmia at all. Bartels says that he knew but one case of amyloid kidneys to die of apoplexy. So this element of sudden danger is lacking in this form of Bright's disease.

The prognosis in all cases of amyloid disease is bad. It is most favourable, I need hardly say, when dependent upon syphilis, because for syphilis we have means of relief. Prevention is the greatest victory and this we may secure, at times, by free evacuation of pus, and destruction, or obliteration of pus-secreting surfaces. Amputations, resections, drainage, aspirations, these are the prophylaxes of amyloid disease. The treatment of syphilis continued long after the subsidence of manifest signs, the thorough neutralization of chronic malarial poisoning, resort to change of climate in phthisis pulmonalis, prevent the development of many a case of amyloid disease. So far as concerns drugs, from the standpoint of existing knowledge, there is but one worthy of trial in amyloid degeneration, and that is iodine. Whether its worth here depends upon its efficacy in syphilis and scrofula, the so frequent forerunners of the condition, is a question yet *sub judice*. We will push it with this child in the form of the syrup of the iodide of iron. From small doses of mor-

phia in cherry laurel water frequently repeated, we have had the best results in combating the vomiting which was the most distressing and exhausting feature of this case. Moreover, we will ask the surgeons to cut out the carious bone at the toe, not in the hope of removal of the amyloid matter, which has already substituted structure in the kidneys and the spleen, the enlargement of which I readily detect, but of faintly helping (perhaps we ought to say, making a feint of helping), to prevent the continuance of the change. Every hope is in prophylaxis. Pitiful is the therapy of amyloid disease when at all advanced. The patient is already reduced by the disease which brought it on. Then it steals upon a prostrate victim like the jackals which prey upon the wounded on the field of battle.

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### REMARKS ON THE DIAGNOSIS AND TREATMENT OF PRURITUS VULVÆ.

*A Clinical Lecture delivered at St. Mary's Hospital.*

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GENTLEMEN: The patient, an elderly woman, who is now before you, has brought this specimen of her urine at my request; our object in procuring it being the demonstration to you that it contains sugar. Its specific gravity is high—1040; and, on applying Fehling's test, with heat, you may observe that a copious precipitate of suboxide of copper is thrown down. We conclude, therefore, that it contains sugar—the influence of any other reducing agent, *e. g.*, uric acid, being excluded.

Looking at the patient, probably a few of you would suspect that she is diabetic: she is neither notably thin, nor has she had, until recently, either thirst or a large appetite; moreover, the amount of urine voided when she first attended was not remarkable; now it averages seven or eight pints in the twenty-four hours. We were led to suspect the presence of sugar in the urine from her complaint of itching of the private parts, the symptom for which she sought relief; and at each visit we have found it to be loaded with sugar. The vulvar itching was at once greatly relieved by a borax lotion; and although there is no abatement of the glycosuria, yet the itching has scarcely troubled her again; in fact, she now makes no complaint of it.

I have availed myself of this case as illustrating an important form of pruritus vulvæ due to a general disease of great gravity, the first clue to which is sometimes obtainable through the symptom of vulvar itching long before the manifestations of diabetes commonly regarded as classical—*e. g.*, wasting, thirst, voracious appetite, polyuria, etc.—have declared themselves. This symptom of pudendal itching—for males, though in a less degree, are subject to it—has repeatedly led me to the discovery of glycosuria. Observe that I use the word glycosuria rather than diabetes; for not all the patients whose urine contains sugar are diabetics, that is, they do not all have an excessive flow of urine, polyuria being manifested later, if at all. Clinically, it is important to recognize that glycosuria occurs in stout as well as in thin folk; otherwise, the malady may be long overlooked. The symptom of pudendal itching will direct your attention to the state of the urine, and may thus lead to the early detection of sugar. Before dismissing the patient, I will ask you to observe her teeth, and note the injection of the capillaries of her cheeks. Her teeth are being shed without decay, as the teeth

of elderly diabetics sometimes are, apparently from shrinking of the sockets, the alveolar processes wasting. In some cases, the teeth become brittle and crumbly. The tendency to injection of the facial vessels seems to be part of a general proclivity to capillary erethism, for flushing of other regions of her skin is easily excited. Here is a photograph of another patient who was tormented with vulvular pruritus, a stout gouty diabetic; and, as the local condition in her case was typical, I will describe it.

The separated vulva looked pale, rough, granular, thickened, and sodden—in texture like the rind of a Seville orange, only dead white. Mark the absence of pigment: it is diminished or absent in many cases, just as in pruritus ani. This change I regard as neurosal. Very rarely there is increased pigmentation, a slaty hue overspreading the parts; or there may be suffused dusky redness, or a glazy redness, especially in the aged, mostly arising from acrid uterine discharges.

But the glycosuric or diabetic is only one of many forms of pruritus vulvæ; and, as the symptoms may arise from a variety of causes, we must review these together, in order that you may acquire a comprehensive knowledge of them. Broadly, they may be divided into two chief classes: the *local* and the *general*; but in some instances these overlap.

*Local Causes.*—These are as follows:—

a. Animal and vegetable parasites may infest the vulva, and excite itching. Among the former are pediculi, acari, and ascarides. Pediculi and ascarides are easily recognized, but the itch-insect may be overlooked. Ascarides are more common in girls than in women, but are by no means unfrequent in the latter. They crawl from the anus over the vulva, and thus annoy; sometimes provoking leucorrhœa also. (The same may be said of tænia, joints of tapeworm escaping *per anum* and exciting irritation in the adjacent parts; but this very rarely happens.) The vegetable parasites are of interest; for the itching appears in many cases immediately to depend upon the presence of certain low varieties, not only in the glycosuric cases, but also, it appears to me, in other instances, in which loss of pigment points to neurosal impairment. The *oidium albicans* (the thrush-fungus) has been met with, and also other low forms of vegetable life, as Friedrich, Hausmann, and others have observed. Sugary urine obviously supplies a most favourable pabulum for the development of lowly organized fungi. It is interesting in this connection to note that most of the successful remedies are parasiticides, as we shall see when discussing treatment. Parts whose innervation are impaired afford, as you are aware, a favourable nidus for the development of low forms of parasitic life, both animal and vegetable; and the flourishing of such organisms in the parts in question may be regarded as evidence of neurosal impairment, indicated, furthermore, by the occasional presence of leucoderma.

Among local causes, we have, further, several important affections, *e. g.*—

b. Diseases of the vulva (as vulvitis, abscess, carcinoma, oozing tumour, lupus, elephantiasis, etc.);

c. Diseases of the urinary system (urethra, bladder, and kidneys);

d. Vaginitis—gonorrhœal and other.

e. Diseases of the uterus (metritis, endometritis, senile catarrh, cancer, fibroids, polypi; acrid discharges arising from some of the foregoing, or occurring mainly in association with menstruation);

f. Ovarian and other tumours, and pelvic effusions;

g. Skin-affections—eczema, ecthyma, herpes, urticaria, acne, etc.

As regards the latter, eczema may be associated with diabetes, producing terrible suffering; while urticaria suggests ovarian disease. Ecthymatous spots, with ashen-gray bases, may indicate grave cachexy (? syphilitic); while the herpetic vesicles are prone to crop out periodically in females of gouty parentage just be-

fore each menstrual period. The French attribute this to the herpetic diathesis. A pustular form of acne is sometimes accompanied by troublesome itching.

It is perhaps true, as a broad generalization, that syphilitic eruptions are not prone to itch; but I have met with marked exceptions to this in some syphilitic affections of the vulva, as in the patient of whom I show you a photograph illustrating elephantiasis of the clitoris and vulva, from whom I removed an hypertrophied clitoris weighing a pound and a quarter. Venereal warts may excite itching.

Malignant disease of the uterus and upper part of the vagina may provoke itching in two ways: first by acrid discharges; and, secondly, reflexly—the latter uncommonly. The same may be said of fibroids, polypi, sarcomata, etc. I have known pruritus to exist for a long time apparently as a consequence of pelvic effusions—*e. g.*, hæmatocele, cellulitis, partly perhaps from venous obstruction, and partly from implication of nervous structures. Some discharges from the interior of the womb are virulently acrid, and excite excoriation of the parts over which they flow. These are revealed by the speculum.

Urethral and vesical affections—*e. g.*, vascular growths, stone, incontinence, etc.—are sometimes complicated by vulvar itching. Careful local investigation, therefore, is obviously necessary in all such instances; and even when the predisposing cause is general, as in diabetes, the local condition may be significant and important, yielding, as has already been pointed out, valuable information.

*General Causes.*—Among the general causes of pruritus vulvæ, we find: (*a*) diabetes (glycosuria), (*b*) pregnancy, (*c*) gout (or lithiasis), (*d*) syphilis, (*e*) prurigo senilis, and perhaps (*f*) the dartrous diathesis of the French. (Diphtheria must be mentioned as an extremely rare cause.)

*a.* The patient whom you have seen is now a type of the diabetic cases. Such are not uncommon; but they usually escape detection until other symptoms obtrude themselves. I have shown you and met with many such; although usually among the middle-aged or elderly, yet also in patients under twenty, as in the case of a young woman who was under my care some years ago. She consulted me for severe pruritus vulvæ; and, on examination, I found extensive eczema. I at once examined her urine, and found sugar. She had then no other symptom indicative of diabetes, nor did she present any for many months; but she ultimately died of it; and I believe her brain is figured in Dr. Dickinson's able work on diabetes. We have had other cases here, as you know, notably one in which diabetes came on rapidly after severe mental trouble; the vulvar pruritus alone leading to its detection.

*b.* Pregnant women are liable to a severe form of pruritus vulvæ. It is usually accompanied by an irritating discharge—whitish, creamy, or yellow in colour, and occasionally very abundant. Sometimes aphthæ and erosions are seen upon the turgid labia or cervix, or there may be vaginitis granulosa. Most of the cases that I have seen have been accompanied by extreme venous turgescence. The distress experienced by some sufferers appears to be painfully augmented by the exalted nervous tension attending pregnancy. Parturient women seldom make complaint of pruritus; but I have seen a few instances in which it occurred, and it has been associated with hydroa or herpes gestationis.

*c.* The gouty form is not uncommon, but, fortunately, it is seldom intense or obstinate unless complicated with glycosuria. It may be seen in plethoric women, even when young, recurring before menstruation, when the urine is apt to be loaded with lithates. Sedentary habits, beer, and strong wines, aggravate it. Stout gouty women at the change of life are prone to suffer from vulvar irritation; some, doubtless, are examples of gouty glycosuria, in whom climacteric disturbance intensifies the mischief. Ordinarily indulgence in the pleasures of the

table provokes itching, while abstinence alleviates. Obese elderly women are liable to vulvar irritation, the secretions of the parts apparently possessing very irritating properties; but you will be amply repaid for your trouble by systematically examining their urine for sugar, for thus you may be enabled to detect latent diabetes.

*d.* As regards syphilis, it is seldom that the early or acuter manifestations of the disease excite itching. It is associated rather with later phenomena, as in the case of elephantiasis already mentioned; but chancres and venereal warts may provoke much irritation.

*e.* Sometimes intractable pruritus vulvæ appears to be part of a general affection, the so-called prurigo senilis, and is associated with general cutaneous hyperæsthesia. Klob says that there are little elevations of the skin, like goose-flesh, consisting of growths analogous to tubercular formations, and giving rise to violent itching. These cases are grave. Some are amenable to the bromides, which are advocated by Gueneau de Mussy, in the form of lotion or ointment, as well as internally. Arsenic and cod-liver oil are also indicated. Such cases are not to be confounded with senile pruritus arising, as commonly happens, from phtheiriæsis.

*f.* A tendency to pudendal itching seems to prevail in those who have what the French call the dartrous diathesis. In them, fissuring of the affected parts is often observed, the skin presenting a glazed, cracked appearance. Renal disorder, notably oxaluria and inadequacy, may be associated with this condition.

All forms of pruritus vulvæ are subject to periodical exacerbation. Some patients suffer only at night, after becoming warm in bed, experiencing comparative freedom during the day. All who menstruate are conscious of aggravation at that time. Stimulants, as a rule, exert an injurious effect. Sedentary occupations aggravate pruritus: governesses and seamstresses, for instance, suffering much, as also do those who work treadle sewing-machines. Piles and hepatic disorders generally are conspicuous.

*Treatment.*—While in many cases vulvar itching readily yields to treatment, in others it proves obstinate and intractable, taxing our therapeutical resources to the utmost. Here, as in other affections, a clear diagnosis as regards causation is generally essential for successful treatment. It is obvious that a symptom owing so many and varied causes cannot be appropriately treated in a routine manner; search must be made into the origin of each case, and treatment based upon the knowledge thus acquired.

Attention to cleanliness will often do much to allay irritation, and should always be enjoined. Demulcent washes are preferable to soap, unless carbolic or coal-tar soap be used, and usually even these are inadmissible. Almond-meal, strong bran-water, decoction of rice, marsh-mallow, slippery elm, or fine oatmeal, are suitable, especially the first, which, if pure, yields during use a marked odour of hydrocyanic acid, and appears to soothe materially.<sup>1</sup> The prohibition of friction may be required, some afflicted sufferers finding transient relief only during scratching, which may be indulged in to an extent involving serious consequences. Relief may be so frequently sought in this manner, as to exclude sufferers from society, and even from the family circle; while other regrettable results, moral as well as physical, may ensue.

When pruritus is due to acari or pediculi, ointment of sulphur, white precipitate, or stavesacre speedily cures, by destroying the insects and their ova. If nits persist about the pubic hairs, a lotion containing bichloride of mercury and acetic acid will dissolve them. Ascarides are destroyed by a carbolic lotion (1 in 60);

<sup>1</sup> Experiment has proved that hydrocyanic acid is evolved.



but general, rather than local, treatment should be relied on for their eradication—iron, quinine, cod-liver oil, together with enemata of hamamelis, lime-water, iron, etc.

The vegetable parasites are very efficiently treated by unirritating parasiticides, *e. g.*, borax, boracic acid, sulphurous acid, etc. Here I would again emphasize the fact that most of the favourite remedies for vulvar pruritus are parasiticides. It suggests that—whether from the sugary pabulum provided by diabetic urine, or from alteration in the nutrition of the parts from neurosal impairment, or from a combination of the two, when coincident—the immediate exciting cause of pruritus is, in numerous instances, the growth upon the implicated parts of low forms of vegetable growth.

Friedreich (*Virchow's Archiv*, Band 30, p. 476) alleges that the pruritus is due to the development of fungous organisms, and my own observations are certainly confirmatory of this view. It is a curious clinical fact, that patients are often freed for days from itching by a single application of a parasiticide; I have observed this repeatedly in glycosuric cases, after the use of a strong borax lotion. It is best to use such remedies in a fluid form, for, when necessary, powerful combinations may thus be made in the unhappily intractable cases. In my experience, fatty preparations of drugs do not suit so well for local application as non-fatty; and yet great relief may be afforded by some ointments, as we shall see presently.

Many cases of pruritus vulvæ are promptly relieved by a borax lotion, and it is well to use this simple and efficacious remedy where not contra-indicated. A drachm to five ounces of warm water is a good standard strength, but a stronger solution is usually needed, seldom a weaker. Hydrocyanic acid may be added—say 3j of the dilute acid to ℥x, or morphia (gr. ij), atropia (gr. ½), aconitia (gr. ½), or veratria (gr. ½). Infusion of tobacco (half an ounce to the pint) alone relieves some cases, and forms a good vehicle for borax or boracic acid. It is not well to use glycerine with the borax as a rule, as it is apt, owing to its affinity for water, to aggravate the irritation. Some find relief from chloral lotions, but the drug has not always suited. Strong decoction of poppy is a soothing vehicle for borax, etc. Ice alone will relieve some; while others can get relief only from the use of very hot water. In excessively severe cases, the ether-spray might be tried.

Boracic acid is an excellent remedy; but, being much less soluble in water than borax, is not so handy as a lotion. It may be combined with hydrocyanic acid, morphia, atropia, aconitia, veratria, etc. In the form of ointment, where fats do not disagree, it often soothes greatly. A non-rancid fat should alone be employed as the vehicle, *e. g.*, freshly made spermaceti cerate, vaseline, fossiline, or purified benzoated lard, etc.

Lotions of iodine occasionally answer, *e. g.*, two drachms of iodine in ten ounces of elder-flower water. Electricity may afford relief in neurosal cases. Probably faradism would be the preferable form.

In simple vulvitis, lead, borax, or carbolic lotions relieve. An ointment of calomel or bismuth is also good. Malignant affection of the parts call for appropriate treatment, such as ablation, where practicable; but sedative applications (conium, opium, belladonna) alone are often all that we can employ.

Urethral caruncles should be removed; and urethritis, gonorrhœal or other, treated *in loco*. Cystitis, stone, and kindred vesical affections and renal diseases, must be treated according to their several indications. Success is unattainable if they be overlooked. Vaginitis, gonorrhœal or otherwise, demands thorough treatment. The packing of the upper part of the vagina with a tampon soaked in glycerine, with carbolic acid, lead, tannin, chloride of zinc, or borax, seems

the most prompt method of cure; but injections of these agents may suffice, and may be preferable. When the itching is associated with chronic metritis, iodized tampons are useful; and so are copious irrigations of the parts with warm water.

When vulvar irritation arises from acrid discharges proceeding from the uterine cervix or cavity, the use of a tampon filling the top of the vagina is most efficient. Cotton-wool, iodized or carbolized, answers well. As glycerine is apt to excite a watery flux, it is not always admissible, but may now and then be required. Absorbent wool, dusted with iodoform, boracic acid, morphia, tannin, camphor, chloral, and such like, may be packed against the cervix uteri, so as to arrest and disinfect virulent discharges; the choice of drug being guided by the form of disease present. It is necessary to attach a string to each tampon to facilitate its withdrawal. Vaginal and pudendal pruritus, arising from acrid uterine discharge, is mostly seen in elderly women, and may be accompanied merely by glazy redness around the ostium vaginæ. Search for uterine discharge may, therefore, be necessary. I have seen it in cancer of the fundus uteri, as well as in senile catarrh.

Local treatment by the tampon may be demanded in malignant disease of the uterus, and also in fibroids and polypi when accompanied by irritating discharge, *e. g.*, in disintegrating calcified growths. Removal of the diseased structures is preferable where practicable; and the same may be said of cases dependent upon ovarian growths. Urticarious itching is the form of pudendal irritation mostly seen in association with ovarian tumours. A lotion of bicarbonate of soda, or one of borax with hydrocyanic acid, generally relieves. Magnesia internally is useful. When there is previous turgescence of the vessels of the part, as may be seen from stasis in some pelvic effusions, relief is afforded by the watery flux provoked by the presence of a well-soaked glycerine tampon; and a mercurial and saline purge is helpful when portal congestion is present. Eczema—often symptomatic of glycosuria, remember—may be very obstinate. Dusting freely with fine oxide of zinc answers well when ichorous weeping is abundant. If fissure be present, a poultice formed of the clot resulting from the addition of two drachms of liquor plumbi to ten ounces of new milk is most useful. Sometimes calomel ointment will alone relieve, as in certain instances of anal mischief; or bismuth may answer, dry or otherwise. Mercurial ointment suits certain cases excellently.

Angry ecthymatous spots appear to yield only to calomel, either dry, or in the form of ointment or of black wash. Opium is a valuable adjunct, both internally as well as externally.

Herpetic eruptions are benefited by a small mercurial dose followed by a saline purge, as the effervescent sulphate of soda, and the local use of borax lotion. If they be very severe, hydrocyanic acid and other local sedatives may be necessary; but it must be borne in mind that these herpetic manifestations generally run a definite course, the vesicles dying away completely. They are often accompanied by lithiasis, and may excite preputial herpes in the male.

It is unnecessary for me to dilate further on the importance of recognizing diabetes as a cause of pruritus vulvæ. When the parent disease is discovered, those restraints upon diet, drink, etc., which observation and experience have taught us to be necessary, should be strictly enjoined. Unhappily, we have no cure for confirmed diabetes, but much may be done by judicious treatment and management, alike for those who are threatened with glycosuria, as for advanced cases. Immense comfort may be secured by the habitual use of cleansing ablutions, and of borax or boracic acid.

Gouty diabetics may experience much benefit from a course of the Bath waters and baths, or from those of Carlsbad, as I have seen there; but I doubt whether confirmed and advanced diabetics are so relieved. The insomnia of diabetic pru-

ritus vulvæ sometimes shows a gratifying amenability to codeia, in the form of one-grain doses in pill. The bromides are also useful as hypnotics.

The distress that pregnant women sometimes experience, especially towards the latter months, may be terrible. When associated with aphthous ulceration, and the odium albicans is present, nothing relieves more quickly than a lotion of sulphurous acid. Some prefer the hyposulphites, and in either case prolonged use is undesirable. As sulphurous acid is very volatile, it is best to mix a tablespoonful of the pharmacopœial solution with half a pint of warm water, barley water, or almond emulsion, freshly for each occasion. Another very useful lotion is formed by two drachms of bicarbonate of potash in half a pint of water. This should also be injected into the vagina; it checks the discharge, often alkaline, which seems to excite irritation. Borax is again a valuable agent, and so is lead.

In some cases, relief is only obtained after treating the cervix uteri; as when aphthous ulceration is seen around the os. Nitrate of silver, lightly used, suffices. Bromide of ammonium internally is highly serviceable. Attention should be paid to the state of the bowels, and to the hepatic and renal secretions, for in many cases elimination is defective. Turkish or hot-air baths exert a better effect over some of these cases than any ordinary treatment; and the same remark applies to certain other varieties of pruritus vulvæ, *e. g.*, those seen in the obese, gouty, and (senile) pruriginous. Jaborandi may prove very helpful under similar circumstances, by producing profuse diaphoresis. Diuretics—juniper, broom, potash, lithia, etc.—are often beneficial, as in gouty cases, especially when combined with colchicum. Restrictions as regards meat, beer, and wine, should be imposed on the subjects of lithiasis.

When vulvar pruritus appears to be part of a general prurigo senilis, besides the local applications already indicated, a lotion of bromide of potassium may afford ease, as has been shown by Dr. Gueneau de Mussy. The same drug given internally is helpful, the affection appearing to be part of a general nervous erethism. Arsenic exerts a controlling effect in some instances of senile prurigo, as well as in those due, as the French allege, to the darts of diathesis.

Arsenic may be said to be indicated in the neurosial forms, and especially when there is marked loss of flesh. It has appeared to me to benefit most those who are the subjects of leucoderma.

It remains only to remark that, in the intractable cases, frequent changes of remedies may be inevitable for the relief of torment. Chloroform locally applied answers occasionally; it may be used in the form of vapour, liniment, ointment, or lotion. Bichloride of mercury, also a parasiticide, gives relief to some in the form of a lotion, but it requires caution in its use. Used in the proportion of gr. j to gr. v to ℥ viij of mistura amygdalæ, it may afford great relief.

I have no experience of section of the pudic nerve in inveterate cases, nor am I aware that it has ever been practised; but Sir J. Simpson mentions that he once severed the skin from the subjacent structures, with considerable benefit.—*British Medical Journal*, March 5, 1881.

### Hospital Notes.

BELLEVUE HOSPITAL, NEW YORK.

(Service of Dr. AUSTIN FLINT, Sr.)

*Quebracho in Dyspnœa.*

(Specially reported for the MEDICAL NEWS AND ABSTRACT.)

CASE 1. *Aneurism of the Ascending Arch of the Aorta; Cardiac Hypertrophy. Great Dyspnœa. Treatment with Fluid Extract of Quebracho.*—Henry J., æt. 48, U. S., wood-carver; admitted December 8, 1880. The patient has

not, habitually, indulged in alcoholics. In 1870, he had primary syphilis, for which he was treated. Secondary or tertiary symptoms never appeared. In 1872, he became affected, without apparent cause, with dyspnoea which was paroxysmal, but not severe. It has slowly increased in intensity up to the present time, and has become constant. He began to suffer from præcordial pain, paroxysmal in character, and increased by muscular effort, three years ago, since which time he has continued to experience it at irregular intervals. On admission, Dec. 8, 1880, he complained of great dyspnoea, of pain in the præcordium, and of debility. Physical examination revealed increased strength of cardiac impulse. The area of cardiac dullness was notably increased. The apex-beat was in the 8th intercostal space, and  $1\frac{1}{2}$  inches to the left of the *linea mammalis*. In the 2d intercostal space, near the right border of the sternum, pulsation, thrill and a double *bruit* were obtained. Dullness also existed. A mitral regurgitant murmur was present. Pulse 104; respiration 25. Temperature normal; urine normal.

*Treatment.*—Potass. iodid. grs. x, thrice daily, increased gradually until, on Dec. 29th, grs. xxx were administered thrice daily. The dyspnoea persisted during all this time, and was relieved, temporarily, by spts. ætheris comp. On January 12, symptoms of iodism having appeared, the iodide was discontinued.

Jan. 28. The præcordial pain and the dyspnoea being still unrelieved, resort was had to the fluid extract of quebracho bark, which was administered in doses of 30 minims every three hours.

29th. After the patient had taken two doses of the quebracho he was completely relieved of his *dyspnoea*, which has not returned. The pulse, which has averaged 100 since his admission, is now 86, and the respiration which has, hitherto, been hastened, is normal. Præcordial pain remains.

Feb. 3. The quebracho was discontinued.

5th. The dyspnoea having returned last night, the quebracho was readministered with the same result as that above recorded.

10th. The remedy has been given thrice daily, since the last note, and the dyspnoea has almost disappeared. Pulse and respiration are normal.

14th. The patient was discharged, improved.

CASE 2. *Asthma; Emphysema; Bronchitis. Treatment with Quebracho.*—Thos. S., æt. 63; Irish, pedlar; admitted February 8, 1881. The patient has suffered from attacks of asthma for a number of years, and has been harassed by chronic bronchitis in the intervals of the asthmatic paroxysms. For two years he has suffered from gradually increasing dyspnoea, which now hardly permits of any exercise. His asthmatic attacks recur every few days without apparent regularity. He has anorexia, and has become much emaciated. His dyspnoea is now continuous, but is much increased at the time of the asthmatic paroxysms. Physical examination shows great emaciation. The facies is anxious and cyanotic. The veins of the neck are turgid. The heart's impulse is felt in the epigastrium. The thorax is distinctly barrel-shaped. The percussion resonance is vesiculotympanic. The expiratory murmur is prolonged and low-pitched. Sibilant, sonorous, and mucous râles are diffused over the chest.

*Treatment.*—The fluid extract of quebracho was prescribed in doses of 30 minims, at intervals of four hours, during the day-time.

Feb. 10. The constant *dyspnoea*, due to the emphysema, has been much relieved. The patient had an asthmatic paroxysm last night, but the shortness of breath attending it was less intense than usual, and its duration was shorter than is ordinarily the case.

20th. The patient has had two attacks of asthma, since the last note. Each was less severe and protracted than its predecessor. The constant dyspnoea

which harassed the patient has almost disappeared under the continued administration of the quebracho thrice daily. Appetite and strength have so much improved that the patient was, to-day, discharged at his own request.

CASE 3. *Nephritis (Chronic). Dyspnœa. Treatment with Fluid Extract of Quebracho.*—Jno. M., æt. 51; English, printer; admitted January 24, 1881. The patient had always enjoyed remarkably good health up to the time of his present illness. Six weeks ago, after prolonged exposure to cold and wet, incident to a debauch, he was attacked with pain in the head, anorexia, and emesis. His ankles and legs became swollen. His urine was very scanty and high-coloured. These symptoms persisted a few days and then disappeared. Two weeks ago his feet, legs, and scrotum became swollen, he grew weak, lost his appetite, and took to the bed. The urine was dark and scanty. A week later, his abdomen also became swollen. On admission, Jan. 24, he complains of swelling of the abdomen and of the lower extremities, of dyspnœa, weakness, and loss of appetite. Ascites, with œdema of the scrotum, penis, and legs, are prominent signs. The thoracic and abdominal viscera are normal, as are the pulse, respiration, and temperature. The urine is scanty; its sp. gr. is 1014. It contains 50 per cent. of albumen (by volume), epithelial and fatty casts.

25th. Amount of urine passed, in twenty-four hours, is 16 ounces. The same clinical and microscopical characters present. *Treatment.*—Potass. acetat., ℥ij; spirits æther. nitros., fl. ℥ij, and infus. scopar., fl. ℥ij, every three hours.

29th. The patient now passes 30-40 ounces of urine daily, but it still contains fatty casts and much albumen. The *dyspnœa* which he had on admission is unrelieved. Fluid extract of quebracho was, to-day, ordered in doses of 40 minims, at intervals of three hours.

Feb. 2. The dyspnœa has much abated. Forty-four ounces of urine were passed to-day; albumen and casts are less abundant.

3d. No dyspnœa whatever is complained of. The quebracho is still administered, as before.

10th. The quebracho was discontinued several days ago. The dyspnœa has not returned.

17th. The patient now sits up. The sp. gr. of the urine is 1012; it contains some albumen and some fatty and granular casts.

March 2. The patient having regained his strength in large measure was discharged.

NOTE.—Quebracho has been tried by Dr. Flint in several cases of dyspnœa from phthisis and pneumonia without avail. In one case of extreme dyspnœa, from mitral regurgitation, it was very efficacious.

#### *Atony of the Bladder; Recovery.*

J. L.—, aged fifty-seven, was admitted into Mr. PEARCE GOULD'S wards at the Westminster Hospital, on August 10, 1880, suffering from retention of urine. He was a labourer with small but very firm muscles, no subcutaneous fat, bald and gray, and looked more than his age, and had marked arcus senilis. He had always enjoyed good health until twelve months before, when he found difficulty in passing his urine. This gradually increased until the night before admission, when after a hard day's work he was unable to pass a drop. He went to a medical man, who gave him some medicine and sent him into the hospital. The "difficulty" he noticed was a slow, feeble stream, and inability to empty his bladder, with frequency of call to micturate.

On admission the distended bladder formed a prominent tumour in the hypo-

gastrum, reaching almost up to the umbilicus. The prostate felt from the rectum was hard and moderately enlarged. Mr. Gould passed without any difficulty an olive-headed catheter, No. 10 English scale, and drew off rather more than four pints of clear, acid, healthy-looking urine. The urine flowed slowly, falling vertically from the end of the catheter. The influence of respiration on the stream was evident. After the escape of about a pint the flow ceased, and the rest was forced out by the hand above the pubes, and when the pressure was relaxed air was heard to be sucked in through the catheter. The man was kept in bed on full diet, and his bladder was emptied by catheter night and morning. On August 15th a mixture containing five minims of tincture of nux vomica was ordered to be given three times a day. The catheter used was always carefully washed in carbolic lotion—5 per cent.—before being used, and lubricated with carbolic oil—10 per cent. This appeared to cause some irritation of the meatus, and vaseline was substituted for the oil, and the irritation quickly passed away. There was no sign of any vesical irritation; the urine remained clear, acid, free from mucus and albumen, and the bladder gradually regained its expulsive power. Thus, on August 15th, the patient could pass 4 oz. of urine by his own efforts, and on August 17th this had increased to 10 oz., and thus he improved until on his discharge from the hospital on September 15th there was only half an ounce of "residual urine" to be drawn off.

*Remarks.*—This case is an example of the extreme degree of atony of the bladder with complete retention of the urine, not unfrequently met with in connection with chronic prostatic enlargement. The daily use of the catheter has long been recognized as the proper mode of treatment for such a condition, but the occurrence of decomposition of the urine with subsequent chronic cystitis have too often prevented the attainment of a perfect result. The case illustrates one application of antiseptic surgery to urinary surgery, and its value in preventing the decomposition of the urine can hardly be overrated. The result of the daily emptying of the bladder in leading to a gradual and almost perfect recovery of the bladder's power throws considerable light on the way in which this atony of the bladder is originally produced. For it is clear that it is not by obstruction of the outflow of urine with retention and stretching of the muscular coat of the bladder, nor is it from any local action of decomposed urine; but rather, it seems, from a small primary "residue" of urine. A few drachms which the bladder cannot evacuate have a paralyzing influence upon the bladder muscle, which leads to the retention of a greater amount of urine; this, again, to further diminution of expulsive power, and so on until the stage of complete retention and atony is reached. The history of such cases before they come under treatment, as well as the results of catheterism, bear out this view. The symptoms often arising from a very small quantity of "residual urine" and the importance of its relief have been laid stress upon by Sir H. Thompson. The patient attends the hospital as an out-patient every month, and up to the present time (March 2d) his condition remains as on the date of his discharge; he continues to draw off the few drachms of "residual urine" every night. The quantity has not increased since he left the hospital.—*Lancet*, March 12, 1881.



## MONTHLY ABSTRACT.

## Anatomy and Physiology.

*Calcification of the Spinal Dura Mater.*

Professors HESCHL and LUDWIG of Vienna have described a pathological (or rather senile) condition of the dura mater of the spinal cord, which has hitherto been very rarely if ever noticed. The discovery was made during the *post-mortem* examination of an insane and paralyzed female, aged 65. The brain was small, especially the left hemisphere, and the convolutions were very narrow. In the spinal cord, especially the lumbar region, the ganglion-cells of the anterior cornua were much reduced in number and in size; and indications of chronic poliomyelitis were present. No history of the subject—whose death was sudden—could be obtained. The spinal dura mater presented, along the whole length of the posterior aspect of its dorsal portion, a peculiar fine yellow dotting, arranged in rhomboidal figures, with their long axes lying in the direction of the longitudinal axis of the spine. The series began in the lower cervical region with an isolated group of yellow dots, four-sided, but with rounded angles, and about six-tenths of an inch in diameter. Immediately below this was a second group, rather larger, which was connected by a narrow bridge with a third. From this point, the groups became gradually closer, and the yellow dots more thickly arranged; until the series ended in a lumbar region somewhat more abruptly than at its beginning. The groups were largest between the sixth and tenth dorsal vertebrae; and this part presented the appearance of ribbon with a symmetrically dentate borders, each pair of dentations corresponding to a vertebra. Subsequent investigation showed that each dental projection corresponded to an arch of a vertebra. Here and there the dentations were prolonged on the lateral, and partly on the anterior, surface of the dura mater; but Dr. Heschl never found them forming complete rings. Subsequently to making the observation above described (in November, 1880), Professor Heschl has had examinations of the spinal meninges made in a number of subjects of both sexes, of ages varying from twenty-one to ninety-three. He finds that no extensive calcareous change of the kind described is to be met with before the sixtieth year, while a few limited and imperfectly defined spots may be observed before that age. The change is most conspicuously marked between the ages of sixty-five and seventy-five; beyond this, he has as yet met with only one case, in a person aged upwards of ninety. Microscopic examination of the spots showed an assemblage of minute points, dark, or with sharp dark outlines, in many places producing complete opacity; there was also the ordinary network of fibres of connective tissue. It was further found that, while the epithelioid lining and the innermost layer of dura mater were unaffected, it was the inner third or inner half of the membrane which contained the calcareous granules, both in and between the fibres. A careful chemical examination of the deposit was made by Professor Ludwig. On analysis, it was found to have the same composition as bone-earth; i. e., to be composed of three molecules of phosphate with one of carbonate of lime ( $\text{CaCO}_3 + 3\text{Ca}_3\text{P}_2\text{O}_8$ ). In the deposits in the dura mater, the lime was replaced to a small amount by magnesia. From a consideration of the conditions in which the calcareous deposit was found in the several subjects examined, Professor

Heschl concludes that it is a senile change, and not necessarily connected with any pathological condition of the nervous centres; and that hence it can only be called "pathological" so far as the term is applied to other changes incident to old age. It is, he says, remarkable that it has been overlooked, or at least not noticed in their writings, by such eminent anatomists and pathologists as Morgagni, Voigtel, Meckel, Andral, Cruveilhier, Rokitsansky, Förster, R. Mayer, Birch-Hirschfeld, Schwann, Henle, Vogel, Kölliker, Key and Retzius, Frey, Cornil, Rindfleisch, or by any other author to whose works he has access.—*British Medical Journal*, March 5, 1881.

#### *Rare Form of Intraventricular Communication.*

At a recent meeting of the Vienna "Medizinisch Doktoren-Collegium," Dr. CHIARI described a rare form of communication between the ventricles of the heart, which he found in a female child aged one year, who had died of tuberculosis. During life, there were observed enlargement of the area of cardiac dulness, systolic and diastolic murmur over the origin of the pulmonary artery, and occasional cyanosis. At the necropsy, the right half of the heart was found to be in a state of excentric hypertrophy; the orifice of the pulmonary artery was narrowed; the pulmonary valves were contracted, and partially adherent. The ventricular septum presented the usual arrangement of trabeculae, but the intratrabecular spaces appeared unusually deep; and, on closer examination, it was found that, in several of them, there was a direct communication between the ventricles. Altogether, five such orifices were found, the largest being about one-ninth of an inch wide; all were lined with a delicate endocardium. Dr. Chiari believed that this defect was to be regarded as due to arrest of development, the intratrabecular apertures which exist in the septum in embryonic life not having become filled up. Hitherto, but little reference has been made to this kind of malformation.—*British Medical Journal*, March 5, 1881.

#### *The Cremaster considered as an Æsthesiometer.*

The researches of Dr. JOSE ARMANGUE, to ascertain whether the cremaster could furnish an index of sensibility, have led him to the following conclusions (*El Siglo Medico*, No. 1401, Oct. 31, 1880, p. 698). 1. The maximum contraction of the cremaster is obtained upon excitation of the skin over Scarpa's triangle, as it has been already noticed by Dr. Esquierdo. 2. The other regions, according to the intensity of the reaction, are—the remainder of the thigh, excepting its external part, the anterior region of the abdomen, the internal of the legs, the external of the thigh, and the posterior of the thorax. 3. Excitation of the upper extremities, the face, the feet, and the external region of the leg, determines very feeble contraction of the cremaster. 4. Both sides of the scrotum are drawn up upon excitation of those parts which induce a strong cremasteric contraction, but the retraction is always greater on the side corresponding to that of the part excited. The half of the scrotum corresponding to the side of the local excitation only contracts when the irritated cutaneous part acts slightly on the cremaster. 5. The contraction is not absolutely equal upon excitation of homologous points, but the difference is really so insignificant, that it may be ascribed to the difference of sensibility between the halves of the body. As a general rule, the testicle which hangs down lower always exhibits the greater contraction. 6. The contraction is proportionate to the strength of the excitation, in confirmation of Paget's law, that the degree of reflex action corresponds with that of the sensations which originate them. 7. The contraction varies with the nature of the excitation, being slight when the skin is tapped with the end of

the fingers, very remarkable when the skin is scratched with the nails, and reaching its maximum when the person is tickled. Tickling, however, may easily lead us into error, as it causes laughing, which by itself elicits energetic contractions of the scrotum. 8. The contraction of the cremaster has never failed to be produced upon excitation of the proper points in sound individuals. The same may be stated in reference to the irritation of normally sensible regions of the skin in individuals with anæsthesia. 9. Some persons exhibit in their normal condition little cremasteric contraction; they always submitted, however, to the above laws, though less intensely. This individual change in the intensity of the cremasteric contraction prevents its serving as a guide to estimate the loss of sensibility symmetrically affecting both sides of the body; since, unless acquainted with the normal antecedents of the case, we cannot judge whether the diminished contraction results from loss of sensibility, or from congenital absence of reflex excitability. 10. This method may be applied to recognize the absolute loss of sensibility; for then, as it follows from the preceding remarks, there will be no contraction whatever of the cremaster, which, on the contrary, will always be more or less manifest whenever sensibility is not impaired. 11. This method may be again applied to surgical anæsthesia, and may be perhaps substituted, in regard of simplicity and reliability, for the other æsthesiometers (Schiff has given this name to the pupil, and Ludwig to the arterial tension). 12. This means is superior to the usual æsthesiometers, the model of which is Weber's compasses, because it does not require for its application conditions which are not constantly met with in every patient. The great advantage of the organic æsthesiometer is that it does not require any active co-operation of the patient; for, when once we interrogate the body, the response comes of itself, not subject to the will, intelligence, and other psychical and emotional conditions of the patient. 13. This method, finally, answers to special indications, and is not free from important inconveniences. Some of them may be, however, avoided by practice and careful application; but the method will always present two inevitable defects, namely, that it cannot be applied to the extreme parts of the body, nor to females.—*London Med. Record*, March 15, 1881.

## Materia Medica and Therapeutics.

### *Physiological Properties of Thalictrin.*

M. DOASSANS, in an inaugural thesis published in Paris, and abstracted in the *Revue Scientifique*, has given some very interesting particulars in regard to the action of the essential principle of a plant rarely found in the Pyrenees, named the *Thalictrum macrocarpum*, belonging to the Ranunculaceæ. The root of this plant contains two substances, which have been isolated. One is an alkaloid, to which M. Doassans has given the name of thalictrin, and which proves to be, although as yet he has only been able to obtain it in too small quantities to permit its composition to be determined, a crystallizable substance, capable of combining with acids to form crystallizable salts. The other substance is a yellow colouring matter, which apparently confers the yellow tint characteristic of the fresh section of the root. On treatment of the root with successive portions of alcohol, and with water acidulated with hydrochloric acid, this yellow substance can be obtained in a state of purity, and has been christened *macrocarpin*. *Macrocarpin* is neither an alkaloid nor a glycoside, but a substance which chemically resembles beberin, from which, however, it differs in some particulars; it has no therapeutic action.

Thalictrin, on the contrary, has well-defined and powerful physiological properties. If a certain quantity of the aqueous extract be subcutaneously injected into a frog a local action is immediately observed, the contractile power of the muscles becoming impaired. After a short interval the muscles contract, and the limb which has been injected becomes hard and rigid. Injected beneath the skin of a dog, it causes sharp pain, and sometimes, owing to its irritating local action, the formation of an abscess. A dose of from two to three centigrammes proves fatal to a frog in the course of three or four hours, and about ten times the quantity of the salts of thalictrin is required to produce the same effect. A dog is killed with quantities varying from two to four grammes when subcutaneously injected, but its toxic influence is much less when swallowed. The principal symptoms observed are general weakening of all the functions governed by the nervous system. The arterial pressure is lowered to an extreme degree, which is dependent, not on dilatation of the capillaries, but upon great diminution of the force of the cardiac impulses. The pulse becomes more frequent. The respiratory acts are also increased in number yet no true asphyxia is perceptible, for the arterial blood remains red, and the relative amount of oxygen it contains is augmented rather than diminished. Indisposition to perform voluntary movements is observed, but the general sensibility is not generally much impaired. The nerves preserve their action on the muscles to the end of life, and the pneumogastries continue to act upon the heart. The muscles preserve their irritability. Death appears to follow as the result of progressive weakness of the heart, respiration continuing frequently some time after the heart has ceased to beat, which shows that the centres presiding over the respiratory movements are not so profoundly affected as those which govern the cardiac movements.—*Lancet*, March 26, 1881.

#### *The Spray Question.*

As to whether the spray is or is not a necessary part of the Listerian method, is a question which at the present time is much discussed, especially in Germany. There are two points of view from which this question has been looked at. First, does the spray really render inert the causes of fermentation which we know to be present in the atmosphere? and secondly, whether it does so, or no, is it necessary, or may it not be replaced by some more convenient means?

Last year Stimson<sup>1</sup> and others published a series of experiments which in their opinion showed that the spray was not effectual in destroying all living particles in the atmosphere. In Stimson's experiments, however, by sweeping the floor of the rooms in which the experiments were carried on, or in some other way, the grosser particles of dust were raised, and mention is specially made of these large masses. On the other hand, experiments have been performed, as for instance, by Cheyne, which show, that acting in the ordinary air of rooms or wards the spray is apparently effectual in destroying all traces of life floating in the ordinary but little disturbed atmosphere. From this point of view, it is simply a question of size of the particles which the spray meets with. If these are minute and but little compact, they will be disinfected. If they are large and dense, as will be the case if the floor be swept during or immediately before the experiment, one could not expect the spray to soak through them sufficiently during their transit. There is another way, however, in which the spray may act on these larger particles, viz., by bedewing the surface of the wound, and thus keeping up the action on the dust which began during its transit through the spray. In fact, the particle of dust already moistened, while passing through the

<sup>1</sup> Amer. Journal of the Medical Sciences, Jan. 1880, p. 83.

spray, falls into a thin layer of carbolic lotion and thus disinfection is completed. As a rule, however, particles of dust which are small enough and light enough to float about in the atmosphere, such particles as are present in ordinary rooms or wards will, as far as we can judge, be acted on directly in a sufficient manner by the spray, for they will not fall straight through it, but will be carried along with it after being moistened with carbolic acid before reaching the wound.

Seeing, then, that the spray is really of use in one or other of the ways, just indicated, the second question arises as to whether it is necessary, or whether some other mode of manipulation might not be more conveniently substituted for it. That the spray is not by any means absolutely essential for antiseptic work, and that aseptic results may be obtained without its use, is at once evident from the experience of Mr. Lister himself. For it must not be forgot, that it was only after several years' practice of antiseptic surgery that Mr. Lister adopted the spray, and that before that time he had been performing operations only justifiable when the causes of fermentation can be excluded from wounds. He only adopted the spray as a more convenient and certain mode of obtaining the same results which he had previously got. Before the spray period, however, he had used various precautions, such as irrigation of the wounds with carbolic lotion or carbolic oil, etc.

Mr. Lister's original method has of late been revived and advocated in Germany, more especially by Prof. Trendelenburg. For several years he has given up the use of the spray in his practice, and resorts instead to frequent irrigation of the wound with the lotion. When he has concluded the operation, he washes out the wound thoroughly with carbolic lotion, and after stitching it up, he frequently injects it by means of a syringe. A similar method has been practised by von Bruns and advocated by Mikulicz. The results obtained in this way are, as is only to be expected, very excellent; but we doubt whether we have here a better or a more convenient method than by the use of the spray itself; indeed there are two serious objections to it. In the first place, as Wernich has pointed out, the element of certainty with regard to the result is very much diminished, for one can never be sure that every particle of dust which has fallen on the wound during an operation is thoroughly acted on by the carbolic acid at the end, and it is as likely as not to happen, that the particle of dust which escapes this action is a living particle, and may set up fermentation in the wound. And then, in the second place, this free application of carbolic acid is by no means a desirable thing, for by it the tissues are unnecessarily injured and irritated, while the chance of an inconvenient absorption of the acid, and consequent carbolic poisoning is very much increased. On the other hand, the spray is really not the inconvenience which some make it out to be; it requires no extra assistant; it does not obscure the field of vision; it does not irritate the wound so much as the other method, while at the same time it adds a considerable element of certainty to the result. The form which this discussion is apt to take is a useless one, the fact being, as we have attempted to show, that, in the present state of science, if the spray is dispensed with, some other means ought to be adopted in its stead.

Whether the spray remains the best means of attaining the wished for result, purification of the air, or whether it be replaced by some other more convenient method, does not affect in the least the truth of the great principles of antiseptic surgery as enunciated and taught by Mr. Lister.—*British Med. Journal*, Jan. 29, 1881.

#### *On Five Cases of Transfusion of Blood into the Peritoneal Cavity.*

The cases reported by VON KACZOROWSKI (*Wiener Mediz. Woch.*, No. 46) were one of each of the following: Puerperal fever, great anæmia with hysteria,



phthisis, marked anaemia in a woman with fungous cervical ulcers and bronchitis, and a case of typhus fever in a female drunkard. In each of these cases, transfusion into the peritoneal cavity, according to Ponfick's method, previously described in these columns, benefited the patient, and in no case did unpleasant complications arise. One of the manual advantages of this simple mode of transfusion seems to be that little surgical dexterity is required for its performance, while it does not appear to have the inherent risks of the venous method. With antiseptic precautions, a trocar is passed through the abdominal wall in the linea alba, and, by means of a tube provided with a glass funnel, the defibrinated blood is poured through the canula into the abdomen. The researches of Bizzozéro and Golgi, reported in the *London Med. Record*, have demonstrated the sound physiological basis of "peritoneal transfusion."—*London Medical Record*, March 15, 1881.

### Medicine.

#### *On the Treatment of Fever in Children.*

In order to diminish fever, M. STEFFEN (*Jahr. fur kinder.*, N. S., Band xv, Heft 3 and 4), has made comparative experiments on the effect of cold baths and salicylate of soda. In all, 148 cases of abdominal typhus (enteric fever) and 30 of exanthematous typhus were treated. Of typhus abdominalis, 48 cases were treated with baths. The latter had at first a temperature of 15 to 20 deg. R. (65.75 to 77 deg. Fah.); but, as the patients could not bear them well, the temperature was in most cases raised to 28 deg. R. (95 Fah.), and was cooled down to 20 deg. R. In some cases of severe fever, sulphate of quinine, in doses of half a gramme ( $7\frac{1}{2}$  grains), was given in the evening. Several tables are given showing the age of the patient, the day of disappearance of the fever, and the number of baths used in each case. The effect of the baths on the temperature, pulse, and respiration is described minutely. Out of forty-eight cases five proved fatal. The author is of opinion that the treatment with cold baths promotes the occurrence of inflammatory processes in the respiratory organs. Contra-indications against the applications of baths, are the frequent reluctance of patients to take them, and collapse, often relieved only with difficulty. Salicylate of soda was employed only when the temperature was above 39.0 deg. C. (102.2 Fah.). In children of very early age, half a gramme or less was given; to older ones, as a rule, one gramme; rarely two grammes. The tables show here, in the place of baths, the doses of salicylate of soda. Whilst the temperature sank in the baths, on an average, from 0.6 deg to 1.5 deg. (Cent.), the differences in the majority of cases are here marked about 2.0 deg. (Cent.). It is characteristic of salicylate of soda, that the effect is not so sudden as with cold baths. The highest point in the difference before and after the remedy occurred only after from four to seven hours. On the other hand, the reduction in the temperature lasted longer than in cold baths, and rose then gradually. In these, as well as in the first forty-eight cases, the sudden cessation of fever differs from what was expected. The conditions of pulse and respiration were the same as with treatment with water. Out of 100 patients, six died. The following secondary effects of the use of salicylate of soda were not of evil consequence, and disappeared soon after the employment of the medicine ceased: dryness and burning in the mouth (the medicine should, therefore, be diluted in at least half a glassful of sugared water), vomiting, ringing in the ears, and difficulty in hearing, delirium, more or less profuse sweating, erythema of the hands and feet, transu-



dation into the subcutaneous cellular tissue, in one case into the serous cavities, sudden collapse, which, however, can be avoided by precaution (too large doses should not be given at too short intervals, and the remedy should not be applied too long). The author has not observed an irritated state of the mucous membrane, but increased diuresis. Twenty cases of exanthematic typhus were treated with cold baths, six with salicylate of soda. The results did not differ from the above.—*London Med. Record*, March 15, 1888.

#### *Dengue in Egypt.*

Dr. MACKIE, Surgeon to her Britannic Majesty's Consulate, sends to the *British Medical Journal*, March 5, 1881, an interesting account of the epidemic of dengue which has prevailed recently in Egypt. It seems first to have appeared in that country in 1877, when an outbreak occurred in Ismailia. In that year, so many inhabitants of the town were attacked, that the tribunals and commercial offices were temporarily closed. It occurred again in Ismailia in the autumn of 1878 and 1879, and also to a slight extent in the autumn of 1880. The disease subsequently invaded every town and village from Alexandria to those situated in Upper Egypt. It visited Alexandria in the beginning of October; and it was in this town that Dr. Mackie and Dr. Murison had the opportunity of observing it.

Dr. Mackie tells us that the disease commences, in mild cases, with slight pains and malaise; in severe cases, with slight shivering, followed by high fever, severe pain in the head, redness, smarting, and suffusion of the eyes. The most characteristic symptom, however, is pain in the back and in the muscles and joints of the limbs. With these symptoms, the temperature of the body is increased to  $104^{\circ}$  and  $105^{\circ}$  Fahr. Dr. Mackie noticed that, in comparison with the increase of temperature, the pulse is slow, a temperature of  $104^{\circ}$  often being accompanied by a pulse of 84 or 90, although it may range between 84 and 130. The pain is special in character, and differs from that of rheumatism or neuralgia. Dr. Mackie compares it to what might be produced by a red-hot iron applied to the affected joint. The tongue is coated with white or yellow fur, and the bowels are constipated. The urine is high coloured, sometimes albuminous, rarely bloody. The skin is hot, and usually dry; the face flushed, and the throat sometimes dry, congested, and painful. In cases of ordinary severity, the fever declines about the third day, and a rash, sometimes resembling that of measles, but more frequently that of scarlatina, appears on the neck, upper part of chest, large joints, and sometimes extends over the whole body. The rash may, however, appear earlier, whilst its duration is usually limited to four or five days; it is not followed by desquamation, as in scarlatina, but, where it is well developed, is occasionally followed by the shedding of fine furfuraceous scales. Convalescence is very slow, the patient remaining weak and prostrate, often troubled with sleeplessness. Children suffer less severely than adults, and usually have a rash which more resembles measles. They convalesce more rapidly than adults. In childhood, the attack is often ushered in by convulsions; whilst, at a later age, a mild delirium is often an early symptom. Although adults suffer from confusion of ideas, and see strange people, birds, insects, etc., in their room, they are usually conscious that these figures are delusions. In mild cases, the symptoms are much less marked, and the patient is able to continue to attend to his duties, although he has much difficulty in so doing. The rash, also, is a much less prominent feature, but, in Dr. Mackie's experience, is never altogether absent. The disease is undoubtedly contagious; if one member of a family is attacked, the whole household are almost certain to suffer.

With regard to treatment Dr. Mackie and Dr. Murison both found that the administration, at the commencement of the disease, of two or three half-drachm doses of salicylate of soda gave immediate relief to the pain, and reduced the temperature. During convalescence, beef-tea and wine for food, with suitable treatment for special symptoms, such as sleeplessness, have been found sufficient. Quinine, in Dr. Mackie's hands, has not proved successful as a remedy. Fortunately, the disease never kills; although one attack will not always protect a patient from subsequent ones, it does not leave him permanently damaged, troublesome boils being the worst sequelæ observed by Dr. Mackie.

#### *Catarrhal Diphtheria.*

MARX, who has, under the superintendence of Professor Oertel, studied a series of these cases, defines catarrhal diphtheria (*Archiv für Klin. Med.*, Band xxvii., Heft 1, 2) as that form in which there is only superficial and limited diphtheritic membrane combined with simple catarrh of the mucous membrane, slight constitutional symptoms, inconsiderable glandular swelling, and limitation of the disease to the throat. That it is a true diphtheria, he considers, is shown (1) by its clinical character; (2) by its not unfrequently passing into the severer forms; (3) by its infective power; and, lastly (4), by its microscopic pathology. The disease begins with slight fever, malaise, and pain in swallowing. The mucous membrane of the throat at some part, generally the tonsil, is swollen, red, and has on it one or more grayish spots like hoar-frost. These spots are superficial, limited, and disappear in two to three days, rarely lasting six days; unless, as sometimes occurs, the disease passes into the severe form with thick and spreading membrane. Microscopically these spots are found to consist of colonies of micrococci, which pass through the comparatively unaltered superficial epithelial layers into the deeper layers where the cells are swollen up and contain large nuclei. After twenty-four hours, pus forms in the deeper layers, and the superficial layers are thrown off. Catarrhal diphtheria differs from the severe form in the absence of a fibrinous exudation between the epithelium, and from simple catarrh of the mucous membrane by the presence of micrococci in place of the numerous organisms in catarrhal muco-purulent secretion, such as *leptothrix buccalis*, *oidium albicans*, etc. In the treatment of this affection, the author recommends (1) immediate isolation of the case, notwithstanding apparent mildness; (2) frequent inhalations of steam; and (3) disinfection of the mouth with gargles, etc. Astringents ought to be avoided as checking the separation of the membrane, which is furthered by a rapid formation of pus under the influence of warm inhalations.—*London Medical Record*, March 15, 1881.

#### *On an Organism in Diphtheritic Membranes.*

M. TALAMON communicated last month to the Société Anatomique a description of an organism which he considers to be the determining cause of diphtheria. His papers appear in *Extensio* in the *Progrès Médical* for February 12th. He obtained, by the cultivation of false membranes taken from eight undoubted cases of the disease, a fungus which consisted of long-jointed mycelial rods, and spores of two kinds: the one oval or round, and giving rise, by a process of gradual elongation, to the mycelium; the others rectangular, and showing, after a short time, minute brilliant specks in their interior, about the size of an ordinary micrococcus. These rectangular bodies he considers to be conidia; and the micrococcus-like specks which subsequently develop in them, are, he thinks, the "veritable germs of the fungus."

Rabbits, guinea-pigs, frogs, and pigeons inoculated with the fluid in which this

fungus had been cultivated, all, with two exceptions, died; and, in all cases, he obtained from some of the fluids of the body the conidia considered to be characteristic. One rabbit died with an enormous swelling of the throat, comparable to the œdema which occurs in some cases of diphtheria. In four pigeons he succeeded in producing false membranes; the inoculation, effected by scraping the mucous surface with a bistoury, and then dabbing the bared surface with the fluid in which the fungus had been cultivated, was followed by the appearance of a false membrane, which covered the inner surface of the cheeks, the tongue, the velum palati, and the upper part of the pharynx; this membrane consisted, as in the case of membranes obtained from man, of epithelial cells, fat-granules, micrococci, bacteria, and yielded, on cultivation, the characteristic organism. In the case of the frogs, the stomach was the organ which underwent a diphtheritic inflammation. Three frogs were inoculated, and died in from eight to twelve days, their tissues "stuffed" with the organism. A fourth was then placed in the water in which the other three had lived and died; after ten days, he also succumbed; and, on examination, the stomach was found intensely inflamed, and covered with false membranes, which were also seen on the peritoneum.

The author points out that, in this reproduction of false membranes, his experiments differ from that of Letzerich and Klebs, who have also described organisms as existing in diphtheritic membranes: but the fluid obtained by cultivation by these observers, though fatal to rabbits, did not produce false membranes, and killed with such rapidity, that the deaths are, with much probability, attributed to septicæmia. Undoubtedly, this reproduction of false membranes, by inoculating birds with material obtained by cultivation of diphtheritic membranes, is of great interest, and lends a definiteness to the results of M. Talamon which has been wanting in the case of other observers; knowing, however, the difficulties which surround the mode of investigation adopted, and, unfortunately, it appears to be the only one at our disposal, we shall hesitate to accept his results in their entirety. The whole subject of diphtheria, and its relation to other forms of angina, is one which urgently calls for elucidation; and we shall await with interest the further facts promised to us by M. Talamon at the conclusion of his labors.—*British Med. Journal*, March 5, 1871.

*On a Peculiar Form of Rheumatic Fever in Childhood.*

Dr. HIRSCHSPRUNG (*Hospitals-Tidende*, series 2, Band vii.) comments on the peculiarities of rheumatic fever in children, and refers to the form of the disease to which attention was first called by Meynet, which is characterized by more or less extensive affection of the sheaths of the tendons, and of the fibrous tissue. He has observed three cases. The rheumatic fever in these cases was not very intense, but was prolonged. Relapse occurs in most of the cases, and the cardiac symptoms are severe. At a varying time in the disease, swellings of various sizes, and in various numbers, appear in the tendons and their sheaths, or in parts where portions of bone lie close under the skin, as the patella, the malleoli, the spinous processes, or the skull. They are as hard as cartilage or bone. They often disappear spontaneously. In very few cases is there any remarkable tenderness or pain in the part, and only exceptionally a slight redness of the skin. The fever does not seem to have any definite relation to the outbreak, and it cannot be decided whether the deposits are confined to the region of the affected limb. In one of the author's cases, the child died of heart disease, and the necropsy showed that the nodules, which appeared to proceed from the tendons, might be regarded as consisting of a new growth of connective tissue, most like the result of chronic inflammation, with some tendency to necrobiosis.—*London Med. Record*, March 15, 1881.

*Treatment of Bronchitis and Pleurisy by Pilocarpin.*

M. Vulpian having arrived at the conclusion that catarrhal inflammation of the respiratory tubes, and inflammation of the serous membranes in their first stage, are those in which jaborandi or its alkaloid pilocarpin have the most incontestable use, M. TAULEIGNE states, in his graduation thesis on the subject, that he has employed them in a series of cases, of which he relates fifteen. The effect of jaborandi or pilocarpin is most prompt, and its success most evident, at the outset of the disease. A single infusion of four grammes (one drachm) of leaves of jaborandi is often enough to get rid of the affection; and M. Vulpian cites a case of well-marked pleurisy in a child, aged ten years, which, treated from the outset, yielded to the action of pilocarpin in two days. Much less is to be expected from its use in long-standing cases. The author relates from his observation of pleuritic effusion without fever or inflammation in which jaborandi has given good results, one case in which considerable effusion had for a month resisted the use of tincture of iodine, eight large blisters, and diuretics, and yielded in seven days to two doses of jaborandi. The fluid once absorbed, and pleuritic rubbing having been noted, jaborandi becomes useless. Recourse must then be had to tonics, and the application of tincture of iodine. Pilocarpin is indicated in the various forms of bronchitis. The author relates a remarkable case of chronic bronchitis, which had persisted during four years, with continued cough, difficulty of breathing, and suffocation, which recovered after the administration of two draughts containing four centigrammes of nitrate of pilocarpin. As to the mode of administration he recommends the hypodermic injection of the nitrate of pilocarpin, in doses of one centigramme. The patient should be fasting, without which the medicine is apt to provoke nausea and vomiting, as soon as sweating is established. In constipated subjects it acts badly, and it is necessary to give a preliminary purge.—*London Med. Record*, March 15, 1881.

*The Treatment of Pneumonic Fever (Acute Lobar Pneumonia) by the Employment of the Wet-Sheet.*

Dr. AUSTIN FLINT, in a recent clinic (*Gaillard's Medical Journal*, March, 1881), presented three cases of pneumonic fever, treated antipyretically by means of the wet-sheet, no other active measures of treatment having been employed. The favourable course of the disease under this treatment, in these cases, was highly gratifying. Dr. Flint said, "Inasmuch as these cases are but a small proportion of those which have been treated in my wards during the session, you may ask why the treatment has been thus limited. The treatment is, as yet, novel in this country. In relating the first two cases at a meeting of a medical society of which I am member, doubt was expressed by other members as regards a favourable influence produced by the treatment, together with distrust of its propriety and safety. I was not without apprehensions, in the first place, in respect of the treatment itself, and, in the second place, as taking the place of other therapeutical measures, notwithstanding the strong testimony of some German writers in behalf of the efficacy of cold baths in this disease. These considerations led to a careful selection of cases. The cases selected were those in which the disease was in an early stage, the patients apparently robust, the pyrexia considerable or high, and no complications existing. I am by no means sure that the treatment might not have been employed in other cases with advantage, but it was thought best to select cases in which there was the least likelihood of harm were the effect not satisfactory."

The plan of treatment was as follows: The directions were to employ the wet-sheet whenever the axillary temperature exceeded 103° Fahr. The patient

was wrapped in a sheet saturated with water at a temperature of about 80° Fahr., the bed being protected by an India-rubber covering. Sprinkling with water of about the same temperature was repeated every fifteen or twenty minutes. If the patient complained of chilliness, he was covered with a light woollen blanket, which was removed when the chilly sensation had disappeared. In none of the cases was the blanket used much of the time while the patient was wrapped in the wet-sheet. The patient remained in the sheet until the temperature in the mouth fell to 102° or lower, care being taken to watch the pulse and other symptoms. When the temperature was reduced, the wet-sheet was removed, and resumed if the temperature again exceeded 103° Fahr.

The first case entered the hospital on the third day after the attack. On the second day after his entrance the wet-sheet was employed thrice. He remained in the sheet the first time, two hours and forty-five minutes; the second time, an hour and a half, and the third time an hour and ten minutes. On the second day the wet-sheet was employed once, and continued for one hour. On the third day, the wet-sheet was not employed, the temperature not rising above 103°. On the fourth day, the wet-sheet was employed once, and continued for an hour. There was complete defervescence on the fifth day, and no return of the fever afterward. Dating from the attack to the cessation of fever, the duration of the disease was seven days. The patient had no treatment prior to his admission into the hospital. The treatment in the hospital, in addition to the employment of the wet-sheet, consisted of carbonate of ammonia in moderate doses, whiskey given very moderately, and a little morphia. The patient was up and dressed five days after the date of the defervescence. There were no sequels, and the patient was discharged well.

The second case entered hospital seven days after the date of the attack. She had no medical treatment prior to her entrance. The wet-sheet was employed on the second day after her admission, and continued for six hours. Complete defervescence took place on the third day. Recovery followed without any drawbacks. Both lobes of the left lung were involved in this case. The invasion of the second lobe, probably, was about the time of her admission into hospital.

The third case entered hospital three days after he was obliged to give up work. On the day of his entrance the wet-sheet was employed, and continued for ten hours. The wet-sheet was employed on the second day after his admission, and continued for five hours. Defervescence took place on this day. The duration of the fever was five days, dating from the time he was obliged to give up work, and seven days from the occurrence of chills and pain in the chest.

Dr. Flint said the histories of these cases as bearing upon the treatment employed, were of considerable interest. They certainly show that in cases like those which were selected, the treatment is not hurtful. More than this, they render probable the inference that the disease was controlled and brought speedily to a favourable termination by the treatment. They also go to show that the disease is essentially a fever, and that treatment is to be directed to it as such, and not as a purely local pulmonary affection. It remains to be determined by further observations how often and to what extent this method of treatment has a curative efficacy. It is also an important object of clinical study to ascertain the circumstances which render the treatment applicable to cases of pneumonic fever, and, on the other hand, the circumstances which may contra-indicate its employment in this disease.

To this series Dr. Flint adds a supplementary case of decided interest in which the pneumonia began with a well-pronounced chill, fever, headache, pain under the left nipple, cough, and a feeling of general prostration. Being without



a home, the patient spent the time from Feb. 18th to the morning of the 21st in a lumber yard without food, and with no shelter but a pile of boards. During this time there was a snow-storm of considerable severity, and the temperature fell as low as  $10^{\circ}$  Fahr. On admission there was a dusky redness of the face, and the expression was anxious; pulse 122, respiration 52, temperature  $102.25^{\circ}$ . He complained of dyspnoea, pain in left side and cough. The expectoration was semi-transparent, adhesive, and had a reddish tint. Increased vocal fremitus, dulness, bronchial breathing, and bronchophony over the left lung.

*Treatment.*—Whiskey,  $\mathfrak{zss}$ , Ammoniae carb., gr. v, every two hours, and a milk diet. Temperature in the afternoon,  $104.25^{\circ}$  F.

22d. Temperature, A. M.,  $99^{\circ}$ ; P. M.,  $99.25^{\circ}$ . Pulse 115 and feeble. Ordered tr. digitalis, gtt. x, every three hours.

23d. Patient improved. All the signs of solidification are yet present, and the crepitant r  le is heard behind. Pulse 70 and full. Digitalis discontinued. Respiration 32. Flush had disappeared from the face.

24th. Temperature, A. M.,  $98.25^{\circ}$ ; P. M.,  $98.25^{\circ}$ . The physical signs now show beginning resolution. Dulness is less marked, bronchial respiration has given place to broncho-vesicular, bronchophony to increased vocal resonance, and the subcrepitant r  le is frequently heard.

25th. Much better. Temperature, A. M.,  $97.50^{\circ}$ . Has a good appetite, takes beef-tea and milk.

28th. Patient is up and dressed.

Two inquiries suggest themselves in connection with the history of this case. One is, did the disease end from an intrinsic tendency to recover in spite of the circumstances under which the patient was placed for the first two days of his illness? It is, of course, absurd to suppose that the disease was arrested by the whiskey and ammonia which were given after his admission into the hospital. The second inquiry is, did the exposure in the open air for three days shorten the duration of the disease by means of an antipyretic effect? These inquiries are submitted by Dr. Flint without discussion for the reflection of the reader.

#### *The Import of the Sweating of Consumptives.*

Dr. ROUSSELOT, of Saint-Die, discusses, in the *Revue M  d. de l'Est*, some of the peculiarities of phthisical sweating, the variable period of the appearance of this symptom, and the point whether the sweating of phthisical persons is to be considered an evil symptom, and one which is to be combated. M. Roussetot believes that, in a certain number of cases, there is a correlation between the sweating and the fever. He remarks, in the first instance, that nothing is more variable than the period of appearance of the sweating in the course of a pulmonary phthisis. There is an active tubercular evolution, and a torpid evolution in some sort passive. In the second case, pulmonary lesion has no influence on the organism. It has not an effective evolution, and it may last for some time without producing fever, and, in consequence, without the procession of symptoms which are ordinarily observed with fever, and particularly in nocturnal sweating. When, on the contrary, there are, from the outset, an active evolution, nocturnal fever, and disordered condition of all these symptoms, then, in general, a hasty appearance of nocturnal sweating may be observed. In this case, the thermometer will render great service in enabling us to study the degrees of morbid combustion. The sweating, which is then very often extremely abundant, allows the elimination of a great quantity of the products of morbid combustion. It may, then, be admitted, according to M. Roussetot, that the sweating affords a derivation favourable to the fever, and does, to some extent, moderate that



symptom. If, then, in certain tubercular persons, nocturnal sweating appears, as it were, at the outset of the affection, it is because these individuals have a tuberculous evolution of an active form, and one which tends to a fluxion and precocious fever. In others, on the contrary, the evolution affects a silent, indolent, torpid form, without any recoil on the organism; or, more strictly, there are tubercles in the lung, but no tuberculous evolution, and the subject is not phthisical.—*British Med. Journal*, Jan. 22, 1881.

#### *Temporary Aortic Insufficiency and Triple Aortic Second Sound.*

Whether there are actual cases of temporary insufficiency of the valves of the heart caused by abnormal widening of the apertures or by disturbance of the closing mechanism (relative and functional insufficiency) has been much disputed. Although denied by competent authorities, there seems good reason to believe that relative insufficiency is not at all an uncommon condition of the tricuspid valve. Last winter, Dr. Heitler of Vienna, in an address delivered before the Medical Society of Vienna, recorded a number of cases in which he had diagnosed relative insufficiency of the mitral valve, mostly cases of Bright's disease and anæmia which he had had under prolonged observation, and in which he had had an opportunity post mortem of verifying his diagnosis. For the mitral valve the diagnosis of relative and functional insufficiency must probably in all cases remain uncertain, owing to the difficulty of excluding hæmic murmurs. With the aortic valve it is not so; and Professor DRÄSCHE, of Vienna, in a recent number of the *Wiener Med. Wochenschrift*, records two cases interesting in themselves and of considerable importance in relation to this question.

The first case was that of a silk weaver, fifty-five years of age, who first came under observation in June, 1879, during which month he was treated in hospital for simple mitral insufficiency. Four months later he appeared again at the hospital and was admitted. For several years, without any known cause or preceding illness, he had been affected with cough and dyspnoea, which symptoms in November, 1878, increased very much in severity, and were several times accompanied by hæmoptysis. When admitted in October, 1879, he also complained of palpitation on exertion, and of symptoms pointing to gastric disturbance. On examination the lungs gave normal resonance, here and there mucous râles, and a little crepitation, with a slight purulent expectoration tinged with blood. The liver-dulness extended three fingers' breadth below the cartilages of the ribs. The heart's impulse was felt to the left of the normal position; and the heart on percussion showed considerable enlargement in the transverse direction, very little in the longitudinal. Over the apex was heard a harsh diffused systolic bruit, with somewhat muffled second sound. The second pulmonary sound was strongly accentuated. Over the aorta both sounds were normal, the close of the second sound, if anything, slightly marked. Pulse small, but regular; temperature normal. The diagnosis naturally was mitral insufficiency. Repeated examinations during several weeks showed no essential difference in the above physical signs. The patient gradually improved, and was allowed gentle exercise in the ward. One day the patient was required for a clinical demonstration in a distant ward, to reach which he had to cross several courtyards and ascend several flights of steps. This exertion caused severe palpitation, and on examination an aortic diastolic bruit was heard in addition to the mitral systolic, the case being therefore pronounced to be one of insufficiency of the mitral and aortic valves. The patient now returned to bed, and next day the most thorough examination could detect only the mitral systolic bruit. Soon after, however, the patient had had a walk immediately before the visit, and now, on examination,

the physical signs were quite different. First, the heart's impulse was somewhat stronger and broader, and over the third left costal cartilage a fine, short, localized thrill was felt during diastole. At the same spot was heard a short diastolic sound, tailing off into the characteristic blowing bruit of aortic insufficiency. The systolic apex bruit was now of a rougher character, the diastolic sound more muffled, and the radial pulse larger and fuller. The thrill and bruit could be readily produced by exertion on the part of the patient, accompanying three or four beats, intermitting two or three, and disappearing entirely after rest in bed. The diagnosis of temporary aortic insufficiency was therefore considered justified.

The second case has both a clinical interest as bearing on the last, and also a physiological interest in relation to the production of the heart-sounds. The patient was a locksmith, aged twenty-nine, with phthisis of both lungs and Bright's disease. During the nine days he was in hospital the patient suffered greatly from dyspnoea, dropsy, and the other usual symptoms of phthisis and Bright's disease. Percussion showed the heart considerably enlarged in the transverse direction. Its action was rapid but regular, and over the apex were heard two normal but weak sounds. Over the aorta were heard with some difficulty a muffled first sound, and a reduplicated diastolic sound. With the breath held back, the second sound was heard to be replaced by three distinct short sounds. Although repeatedly examined for, no diastolic bruit was at any time heard. The post-mortem examination showed phthisis of both lungs and chronic desquamative nephritis. The right ventricle of the heart was hypertrophied by a half, and the intima aortae and a few papillary muscles were slightly fatty. The mitral and aortic valves were in no way thickened, and under the water test the latter was found competent. The semilunar valves of the aorta were, however, peculiar, having a step-like arrangement, the posterior valve being at the normal level, the left somewhat lower, and the right lowest of all. They were likewise of unequal breadth and depth, and slightly united at their commissures.

These conditions Professor Drasche considers explain the threefold second sound, the semilunar valves being distended in order with a short but distinct interval. Apparently they were perfectly competent during life, but we can very readily understand how a disturbance of the heart's action—*e. g.*, from an obstruction to the circulation—would influence them, and as this obstruction may be temporary, so might the insufficiency produced be temporary, not necessarily leading to hypertrophy. Perhaps in the first case similar differences of position, size, and depth of the valves existed, combined, very possibly, considering the later age of the patient, with thickening and shrinking of the valves such as was probably present in the mitral valve. While admitting that the above is a possible or even probable explanation of the reduplication of the second aortic sound in this case, we would add the comment that such reduplications have, as Walshe points out, very generally little diagnostic significance. They may be produced by various causes—*e. g.*, a deep inspiration—and appear to originate from a want of synchronism in the contraction of the two sides of the heart. Why should the second sound in this case have been single at the apex? Professor Drasche says nothing of any difference between the three sounds, to explain one being heard rather than the two others, and we cannot here give Flint's explanation for the singleness in those cases of want of synchronism referred to above—*viz.*, that the weaker pulmonary sound is not transmitted.—*Med. Times and Gazette*, March 5, 1881.

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*Extract of Calabar Bean in Atony of the Intestines.*

From experiments on animals, which showed powerful action of the muscular coat of the intestine under this drug, SCHAEFER (*Berl. Klin. Woch.*, No. 51)

has prescribed it with excellent results in five cases of obstinate intestinal atony with constipation and flatulence. The dose was about 1.45th of a grain in glycerine, three times daily.—*London Med. Record*, March 15, 1881.

#### *Intestinal Obstruction by Large Biliary Calculus.*

M. DUMÉNIL presented to the Medical Society of Rouen a biliary calculus of great size, which had given rise to intestinal obstruction. A patient, aged 46, was seized on the night of the 19th and 20th July, with violent abdominal pain and biliary vomiting. The circumstances of the intestinal obstruction continued in spite of treatment for six days, when the object which had given rise to the occlusion was expelled, and health was restored. This body consisted of three biliary calculi; one large and two much smaller, but connected together in the shape of a stirrup by fecal matter and detritus, with intestinal mucus: prolonged washing separated the parts. M. Duménil discusses how this enormous biliary calculus made its way into the intestine; he cannot admit that it was by traversing the ductus choledochus, but attributes it to ulceration of the gall-bladder or biliary canals. This fact is interesting in the view of the symptoms of obstruction to which it gave rise, and may be remembered in connection with a case of intestinal obstruction. The form and condition of the calculus proved that it had remained for a long time in the gall-bladder, and its passage into the intestine showed that old serous adhesions must have existed between the gall-bladder and the corresponding part of the intestine.—*London Med. Record*, March 15, 1881.

#### *The Pathology of Diabetic Coma.*

VON JAKSCH (*Prager Med. Wochenschrift*, 1880, Nos. 20 and 21) reports a case of diabetic coma in a boy aged 13. The nervous symptoms supervened three weeks after the appearance of the diabetes was recognized; and the boy died in four days, with a rectal temperature of 33.3° Cent. (91.9 Fahr.). The blood examined during life showed destruction of the red blood-corpuscles, but no fat-drops. The urine gave a strong acetone reaction with ferric chloride. He also describes a case of acetonæmia in a boy who was not the subject of glycosuria, and who recovered completely after free purgation.—*British Med. Journal*, Jan. 22, 1881.

#### *Cases of Diabetes treated with Salicylic Acid.*

Dr. LATHAM had been led to try salicylic acid in cases of diabetes, from theoretical considerations, arising out of a hypothesis as to the curative action of the same drug in acute rheumatism. He contended that the substance cured acute rheumatism by entering into chemical combination with the antecedents of the *materies morbi*, which was probably lactic acid. The glucose of diabetes might have a common origin with the former, and the administration of salicylic acid might be equally serviceable in preventing its formation. He tried it in six cases of diabetes with very varying success, but still with such results as seemed to warrant further trial and investigation. In one case, the sugar had entirely disappeared. The patient, a married woman, aged 53, had, in June last, great thirst and polyuria, passing seven to eight quarts in twenty-four hours. The specific gravity was 1042, and the amount of sugar was large. The symptoms had begun two months before. Under a regulated diet, she improved much; but on December 2d, when the salicylic acid was tried, she was still passing three pints of urine during the night, of specific gravity 1025, and containing a quantity of sugar. Fifteen grains of salicylic acid were given three times a day,

and distinct improvement immediately followed. The sugar gradually disappeared, till on December 22d, the specific gravity being 1017, there was no trace of sugar, but under the microscope, crystals of oxalate of lime and of uric acid. On December 28th, she was suffering from rheumatic pains in the joints. She had experienced the same for the first time in her life a few months before the diabetes was discovered. In another case, the sugar disappeared from the urine after salicylic acid was administered; but the patient meanwhile had swelling and suppuration of the parotid gland and surrounding tissues, of which he died. In a third case, the results were ambiguous. Three other cases are at present in the hospital under treatment. Dr. Latham has not ventured in any of the cases to try the enormous doses of fourteen to sixteen grammes daily which had been given in Germany (in the Medical Clinique at Kiel; see *Berliner Klinische Wochenschrift*, 1877). In the above cases, even sixty grains a day had been sufficient to produce some of the physiological effects of the drug. He thought the remedy was of use in diabetes; but in what cases, or under what limitations, must be matter for further investigation.—*British Med. Journal*, Feb. 19, 1881.

#### On Morbid Sweating.

M. BOUVERET, in an excellent thesis on this subject (*Jour. de Méd.*, Jan. 1881), mentions some remarkable and important cases of ephidrosis or local sweating. Sweating of the legs is mentioned by Verneuil as a frequent sign of deep-seated varices: there is a notable and habitual increase of the sweat, which is often accompanied by itching, eczema, and erythema. The fact is important to note in the obscure diagnosis of deep varicose veins.

Another singular example of local sweating is parotidean ephidrosis; it occupies the region of the parotid gland, sometimes extending over the neighbouring parts, and even over a considerable portion of the face. It is not continuous, but generally intermittent, and only appears during mastication. It follows injury, such as a wound or opened abscess of the parotid gland. The duct of Steno is most often closed, but the phenomenon is not due to a transudation of the saliva, as one would suppose: it is really a local sweating of reflex origin. Facial ephidrosis is also commonly reflex, and due to excitation of the nerves of taste. The excessive secretion sometimes extends over the entire face, sometimes it remains unilateral; it has been observed exactly limited to the region of the face supplied by the supreme maxillary branch of the trigeminal nerve.

Von Graefe has seen four cases of palpebral ephidrosis. The skin of the eyelid presented well-marked hyperæmia, and, on examination by a lens, during effort or emotion, a clear fluid could be seen to escape from a multitude of little orifices. Ephidrosis may occupy one entire side of the body.

Habitual general sweating may show itself in variable and ill understood etiological conditions. One of the most interesting is that of the menopause, which M. Liégeois has studied very completely. It is well known that, at the menopause, women are subject to flushes of heat and sweating; but what is less known is, that these sweats, though independent of any other affection, may become morbid. It may not be the case always of women who no longer menstruate; the hyperidrosis may come earlier, and appear when the near approach of the menopause announces itself by certain irregularities of menstruation. It is not always a passing symptom; M. Liégeois cites several cases where women were affected by it for several years; he was able, however, in most cases, to check it by the use of atropine. In most of these patients the hyperidrosis appeared especially towards the end of the night. M. Liégeois advises the administration of atropin some hours before the expected return of the sweating. Half a milli-

gramme is a sufficient dose; it is well to continue the medicine several days after the cure.

Besides these forms of morbid sweating, M. Bouveret has studied those which are characterized by a peculiar colour. Chromidrosis, for example, or blue sweat, so rare that its existence has been denied by many authors, is affirmed as a scientific fact. Like sweating of blood, this singular alteration of the sweat appears most often among that set of symptoms which characterizes hysteria. Violent moral emotion is frequently the occasional cause of it; the eyelid is nearly always first attacked, and most often the lower one; blue sweat may, however, appear in other regions, the feet, the axillæ, the epigastrium, forehead, cheeks; the ears are always spared. Sometimes the blue colouration extends over large surfaces; sometimes it is developed on little patches of the integument. The colour varies from blue to black, passing sometimes to deep violet. The abnormal secretion proceeds by successive attacks, returning at variable intervals, generally preceded, as in the first attack, by disorders of menstruation, and by local derangements of the circulation or of sensibility. The colouring matter which gives the special aspect to this secretion is analogous to indigo, and its secretion seems to be produced under the influence of a vaso-motor disturbance. The same is true of hæmatidrosis, a phenomenon very much discussed, and of which the labours of M. Parrot especially have clearly shown the nature.

The sweating of blood, which shows itself nearly always in hysterical women, may occupy very variable extents of the integument, sometimes oozing out in droplets, sometimes in the form of filiform jets; the liquid is composed of blood containing all its elements. It is intermittent, proceeding by steps, coincident with painful eruptions of the skin. These hemorrhages are never alarming from their abundance; moreover, the fluxes of blood in hysteria often enjoy the singular privilege of not compromising the health or the life by reason of their quantity; for the hæmatidrosis should be regarded as a sort of hemorrhagic hysteria, all the more so as it accompanies, in many cases, hemorrhages of the stomach, of the uterus, of the bronchia, of which the neuropathic nature cannot be doubted; its existence, on the contrary, is doubtful except in hysteria.

The remarkable and nearly constant effects of atropin, administered according to the method of Sydney Ringer (attributed by M. Bouveret, *more Gallico*, to M. Vulpian), are clearly demonstrated. In a good many diseases, far from respecting profuse sweats as a useful symptom, on the contrary, it is desirable we should combat them; this is especially the case in acute articular rheumatism, where the abundant sweats may be suppressed without inconvenience.—*Lond. Med. Record*, March 15, 1881.

#### *Cure of Lichen Ruber by Hypodermic Injections of Arsenic.*

In the *Berl. Klin. Woch.* of 13th Dec. 1880, Herr KOEBNER records the history of a well-characterized case of lichen ruber exudativus treated by hypodermic arsenical injections, with a favourable result. Regarding this disease, often mistaken for eczema, and attended by progressive wasting, Hebra pronounced the opinion that when extensive it is invariably fatal, and that treatment is unavailing. Of late years, the prognosis has not appeared so hopeless, if heroic doses of arsenic be administered. Dr. Koebner thus describes his case. The patient, a carpenter, aged 39, observed in May, 1879, a red, itchy patch on the right shin; five months later, a similar patch on the left shin, then on the back, whence the trouble spread to his whole trunk, depriving him of sleep and strength. For two months he had been taking five to eight drops of Fowler's solution daily. When seen by Koebner his whole body, from the neck downwards, was studded with innumerable dark red papules, somewhat glistening, and here and there



umbilicated on their apices, occasionally covered with a fine scale, and conical in shape. They formed a sheet of eruption, discreet at parts, but mostly confluent, unmarked by any appearances of vesiculation or pustulation, and reaching down to the knees on the one hand, and the wrists on the other hand. The back was worse than the belly, and the extensor aspects of the limbs were worse than the flexor aspects. Thick infiltrated scaly patches of skin existed here and there on the most affected situations, and the penis showed a few papules. The legs were free. The patient was much troubled with scratching, a process he continued even while being examined. He was thin, wasted, and weak, but still perspired normally. All the viscera were healthy, but he showed the marks of a cured periorbital necrosis, as well as of white swelling of the left elbow joint, which was now ankylosed. The pulse and temperature were normal; there was nothing special in his previous history. He was treated by daily injections of Fowler's solution, diluted to one-third of its strength with water, the dose varying from about three to six minims of the Fowler's solution, with immediate relief to the itching. Its administration by the mouth in doses of from ten to fourteen drops a day, tried for convenience' sake, proved a failure, and the endermic applications had to be resumed. These were repeated in like doses, at first daily, then at longer intervals; and by the whole treatment, which lasted two months, the patient obtained rapid improvement, ending in complete cure. Three months later, there was no return of the disease; traces of which remained only in the form of white scars.—*London Med. Record*, March 15, 1881.

### Surgery.

#### *Gastrostomy in Cases of Stricture of the Œsophagus.*

Dr. T. F. PREWITT, Professor of Clinical Surgery in the Missouri Medical College, records (*St. Louis Courier of Medicine*, March, 1881) a case of stricture of œsophagus (either cancerous or syphilitic) in which he performed gastrostomy when *in extremis*, with an unfavourable result. Dr. Prewitt tabulates fifty-nine cases of the operation and from their study deduces the following propositions:—

1st. All attempts at dilatation fail in a large proportion of cases of stricture of the œsophagus.

2d. In very few of the cases does dilatation prove beneficial, and in a still smaller number curative.

3d. In malignant and ulcerative conditions catheterization is fraught with danger, and is *absolutely contra-indicated*.

4th. In cicatricial stricture it is permissible to attempt dilatation with soft, flexible instruments, incapable of perforating the œsophageal walls.

5th. In cases of cicatricial stricture which have failed to yield to reasonable efforts at dilatation and in which the emaciation is progressive and starvation threatens, and in all cases of malignant and ulcerative stricture, as soon as solids cannot be swallowed, gastrostomy should be performed.

#### *Serious mishap after Gastrostomy.*

Dr. P. KRASKE reports (*Cent. für Chir.*, No. 3, 1881) a case in which after gastrostomy had been performed by Professor VOLKMANN, for advanced cancerous disease of the œsophagus, the patient, a man, aged 48, died on the second day in a state of coma. In the operation, which was performed under the car-



bolie acid spray, the stomach, found to be not quite empty, was fixed to the edges of the external wound by a dozen silken sutures, some of which were passed through the whole thickness of the anterior wall of the viscus. No further steps were then taken, save covering the wound with antiseptic dressing, as it was proposed to open the stomach at a later period. At the *post-mortem* examination, the condition of the wound was proved to be very good; but, on the anterior wall of the stomach, near the pylorus, and also on the left lobe of the liver, was observed a thin layer of loosely adherent exudation of a dirty-brown colour, which, on microscopical examination, was proved to contain gastric contents, namely, vegetable cells and *débris* of distinctly striated muscular fibre. The peritonitis had not extended to any other part of the abdominal cavity.

In his remarks on this case, Dr. Kraske states that the peritonitis which, though limited, was the cause of death, had been set up through the discharge into the peritoneal cavity of a portion of the contents of the stomach. Apart from the fact that the appearance of the wound, and the condition of the peritoneum in its immediate neighbourhood, forbade any supposition of the peritonitis having been the result of an infection at the time of the operation, certain constituents were found in the inflammatory exudation, as to the nature and origin of which not the least doubt could be entertained. These constituents had certainly been discharged from the interior of the stomach; and, as the wall of this viscus had not been incised, they must have passed through the punctures occupied by the sutures. This case, then, demonstrates that it is possible, after an incomplete gastrotomy, for the contents of the stomach to be discharged through the small perforations made by the sutures. This result, it is stated, is not surprising. The stomach, when dragged forwards and retained in an abnormal position, has naturally a great tendency to sink backwards; and the margins of the small punctured wounds may be thus stretched and torn so as to permit during coughing or vomiting the free passage of gastric contents into the peritoneal cavity. This accident, it is evident, is the more likely to occur when the stomach is well filled, but still cannot be effectually guarded against by operating on a stomach with but scanty contents.

Dr. Kraske, in considering whether and how this accident could have been prevented, states that it occurs at once to the surgeon that the wall of the stomach might have been transfixed through its external and middle coats only, the mucous layer being left intact. It has been proved, however, that this is not a safe course, since the stomach, in the course of a very few hours after the operation, tears itself away from the sutures, and falls backwards to its normal position. The danger of discharge of the gastric contents might be certainly prevented by rejecting sutures, and by attempting by some other means to keep the anterior wall of the stomach in sufficiently prolonged contact with the external wound for the establishing of firm adhesions. How such a plan, which, as is well known, has been carried out by Volkmann with much success in the treatment of hydatid cyst of the liver, is to be applied to so movable an organ as the stomach, is a question that has yet to be settled.

It is next considered whether, with the object of preventing extrusion of the gastric contents along the sutures, gastrotomy ought not to be always performed in one stage. There can be very little doubt that this accident might be prevented by at once incising the stomach after it has been fixed by sutures, and by washing out its interior. Dr. Kraske does not give any decided opinion as to the necessity of giving up in future the operation of gastrotomy in two stages; but to those who practise the single operation, he recommends that the wall of the stomach be transfixed by two sets of sutures, the first involving the serous and

muscular layers only, and the second, applied after the viscus has been incised and opened, involving also the mucous coat.—*London Med. Record*, March 15, 1881.

#### On Colotomy.

In an article in the *Hospitals-Tidende*, series 2, Band vii., Dr. C. STUDSGAARD examines the merits of the two operations—anterior colotomy or laparocolotomy, and posterior or lumbar colotomy. He gives the preference to the former (Littre's method), especially since the use of antiseptics has materially diminished the danger of opening the abdominal cavity. Costallat's advice to perform the operation in two stages—the bowel being first opened some days after the incision is made, in order that the edges of the incision in the abdomen may granulate before they come into contact with the fecal matter, and that the risk of diffuse inflammation may be diminished—he regards as rational, provided that the urgency of the symptoms of ileus do not demand immediate relief, in which case he considers it quite superfluous to open the bowel with the cautery instead of the knife. Cauterization of the wound with a 10 per cent. solution of chloride of zinc is sufficient to obviate infection, the more so as it is only in exceptional cases that fecal matter passes in the first days. The incision in the intestine should be  $1\frac{1}{2}$  inches long; not smaller, in order to give room for the passage of feces; nor, if possible, larger, lest prolapse of the mucous membrane of the bowel should occur. The size, however, which should be given to the opening in the bowel must in some measure depend on the indications for the operation. In cases where it is difficult to be certain that the function of the fistula will be permanent, Dr. Studsgaard has modified the application of sutures to the intestine. The lowest sutures are introduced into the intestine in such a way, that a great part in front lies free between two corresponding sutures, while the posterior ones are passed through the bowel closer to one another in the neighbourhood of the mesentery; in this way, a kind of spur is left at the lower angle, which will obstruct the passage of feces into the rectum. Dr. Studsgaard finally relates seven cures of anterior colotomy performed by him in the Communal Hospital of Copenhagen. Of the patients, two died in the hospital and five were discharged, one of whom died six months afterwards of metastatic cancer.—*London Med. Record*, March 15, 1881.

#### *Healing up, under Antiseptic Precautions, of Fresh and Dead Tissues in Serous Cavities, and the Subsequent Fate of these Tissues.*

Starting from the observation that foreign bodies and ligatured portions of tissue, *e. g.*, the returned pedicle in ovariectomies, may without injury to the patient be left in the body, ROSENBERGER (*Archiv für Klin. Chir.*, Band xxv. Heft 4) has performed certain experiments with living material, mostly pieces of muscle, but also whole organs (the kidney). The results of these experiments are as follows. With antiseptic precautions, pieces of living tissue heal up in the serous cavities of animals, either quite without, or with only the very slightest reaction. After a time, these pieces disappear without leaving a trace. The tissue need not be from the same animal—need not even be from the same species of animal. The process is not one of digestion, but commences with the encapsuling of the tissue on the third or fourth day. From the capsule, cells wander into the inclosed tissue and break it up. A rarer method is for the piece of tissue, after five or six days, without having caused any irritation in the peritoneal cavity, to have still little or no union with its surroundings; the

capsule becomes firmer, receives a capillary network, and the tissue thus nourished, lives on. This method occurred only in the case of animals of the same species. A third method is precisely the same as the last, with the exception that, in the centre of the piece, probably owing to insufficient nourishment, a pus-cavity is found.—*London Med. Record*, March 15, 1881.

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*Amputation of the Breast by a Bloodless Method.*

In No. 30 of *Centralb. für Chir.*, 1880, Leisrink has mentioned a screw-compressor, which he has used twice in removing the breast, to make the operation quite bloodless. This apparatus consists of a flattened U-shaped iron, the vertically standing arms of which are placed in the holes of a straight iron staff. The latter, as soon as the female screws are applied to the vertical arms and screwed, presses the base of the breast against the horizontal bar of the apparatus, making the breast free from blood. SZUMAN recommends (*Ibid.* No. 40) a process to make the amputation bloodless, which can be used not only with a pendulous breast, but with any other. He operated on a medullary sarcoma of the breast with a broad and flabby base, in the following manner. The base of the breast was pierced close to the thorax three times by means of a long straight needle, which was armed with a double and very strong silk thread; the threads were then fastened in such a manner that the base of the breast was divided into four parts, constricted by ligatures, and thus made free from blood. Above the ligatures, the tumour was removed, the veins tied, and the wound sewed together. Complete union by first intention was obtained.—*London Med. Record*, March 15, 1881.

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*Chlorate of Potash in acute Blennorrhagia.*

Dr. GAMIR (*El Siglo Medico*, October, 1880), of Havana, reports four cases of acute gonorrhoea, which he treated with chlorate of potash. The average duration of treatment was ten days in each case, and the salt was prescribed in doses of from 10 to 20 grammes daily.—*London Med. Record*, March 15, 1881.

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*Trephining of the Ilium.*

Dr. G. FISCHER, of Hanover, has recently reported (*Deutsche Zeitschrift für Chirurgie*, Band xiii., Heft 506) a case of large psoas abscess from spinal disease, in which an opening made below Poupart's ligament had not been sufficient for a free discharge of the pus. As fluctuation could not be felt in the lumbar region, and the extremity of a long probe passed into the cavity of the abscess could not be felt under the skin, Dr. Fischer, in order to make a free counter-opening, trephined the ilium. The soft parts having been divided near the postero-superior angle of the bone, the ilium was perforated, and pus at once flowed through the opening. There was very slight reaction after this operation. The patient, whose condition was weak for a time, died ten weeks later from tuberculosis.

Two other cases of trephining of the ilium have since been published by Dr. M. RIEDEL, of Göttingen (*Centralblatt für Chirurgie*, No. 52, 1880).

A boy, aged 16 years, came under treatment in October, 1877, in a very exhausted condition, and with an open abscess of long standing at the back of the thigh. On examination, whilst the patient was under the influence of chloroform, a long probe was passed first upwards and forwards to the upper third of the front of the thigh, and then upwards under Poupart's ligament, and along the inner surface of the ilium, until it grated against a bare and rough osseous surface at a distance of about two inches and a quarter from the postero-superior spine.

As the spine and the sacro-iliac articulation seemed to be quite healthy, this patch of bare bone was regarded as the starting-point of the abscess. The ilium was trephined at this point, and vent given to some very putrid pus. Erosion of bone was found on the inner surface of the bone, but not any sequestrum. The sacro-iliac joint was found to be quite healthy, but a small fistula was observed leading upwards to the spine. The patient made a very slow recovery after this operation. After a treatment of nearly two years' duration, the patient was discharged as convalescent. The back was then straight, but there existed several open and scantily secreting fistulae. When seen again a year later, and after he had been working in a factory, the patient presented a well-marked spinal curvature in the lumbar region. The numerous fistulae at this time had almost all closed.

The subject of the second case—a boy, aged 15—was admitted into the Göttingen Surgical Clinic on June 14, 1880. He had fallen on the left hip about eight weeks previously, and a few days later he became feverish, and began to suffer pain at the seat of injury. When first seen by Dr. Riedel, the thigh was flexed on the pelvis at an angle of 50 deg., and some swelling could be observed in front of the hip. Two months later, in consequence of fluctuation having been made out, an incision was made into this swelling, at a point just below the antero-inferior spine of the ilium. Through this opening the finger could be passed into a cavity on the inner surface of the ilium, which cavity was surrounded by newly-formed bone, and contained a small sequestrum. After unsuccessful attempts to drain the abscess by an anterior opening by the side of the rectus muscle, and a posterior opening made through the muscles on the outer side of the thigh, the ilium was trephined at the seat of the disease. This operation was followed by a free discharge of pus, and subsequently by recovery of the patient.

This operation, Dr. Riedel states, is not attended with difficulty. Severe hemorrhage may be avoided by tearing through, instead of incising, the subcutaneous soft parts, and there is but slight reaction after the proceeding. The propriety of Dr. Fischer's indication for this operation is questioned by Dr. Riedel. The former surgeon would trephine the ilium, in order to obtain the best possible outlet for the purulent contents of a pelvic abscess. But when such abscess is due to vertebral disease, the best situation for a counter-opening, or an opening for drainage, is just above the crest of the ilium. In order to make an incision into the abscess in this region without any danger, the surgeon need not insist on fluctuation, but should cut down on the end of a long probe introduced, *not* below Poupart's ligament, but through a puncture made above this structure, near the antero-superior spine, the probe being then carried backwards and outwards until it can be felt under the skin of the back of the patient. The danger of wounding the peritoneum, in case of no abscess existing in the lumbar region, is not very great, provided the sound be introduced carefully. An incision made above the crest of the ilium at its posterior portion is regarded by Dr. Riedel as the best means of draining a pelvic abscess consequent on vertebral disease, and far preferable to a perforation in the ilium. Trephining of the ilium, it is held, is indicated in cases of abscess dependent on disease either of the inner surface of this bone, or of the soft parts contained within the pelvis. In such cases, the operation not only affords a free outlet for pus, but it exposes to direct attack the seat of the primary disease.—*London Medical Record*, March 15, 1881.

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*Pulsating Encephaloid mistaken for Aneurism; Ligature of Right Common Carotid Artery.*

Surgeon M. D. MORIARTY reports (*Indian Med. Gazette*, Feb. 1, 1881) the case of a man, aged 45, who applied to him, Feb. 5, 1880, with the following

history. About sixteen years before he noticed a pulsating tumour of the size of a small walnut, seated immediately below his right ear, which caused him no great inconvenience. About two months ago the tumour became painful and began to increase in size, and the right side of his face became paralyzed.

On examination a tumour, the size of a small orange, was found to occupy the right parotid region; it extended upwards in front of the ear to about the level of the temporo-maxillary articulation, and behind the ear to a similar level; its lower border was about half an inch above the level of the upper border of the thyroid cartilage. The lower part of the ear was bulged upwards, the external auditory meatus being almost closed. The tumour was more or less globular, with a slight irregularity in the shape of a little prominence at its lower posterior part. On the upper and back part of the tumour were two small blue veins; the skin over the tumour was somewhat congested, especially posteriorly, but was freely movable. The tumour was more or less movable from side to side, its base however appeared to be fixed; it pulsated, the pulsation being systolic and distensible, and on auscultation a well-marked bruit was heard. To the feel the tumour was rather tense, but apparently fluid, the posterior part being perhaps a shade less tense than the rest of it; pressure on it somewhat diminished its size. The right common carotid beat more vigorously than its fellow of the opposite side. Occlusion of it diminished the size of the tumour and completely arrested its pulsation. (No note was made as to whether the consistency of the tumour was also altered, but it must have been to some extent). When the artery was let go the blood entered the tumour with a soft distensible pulsation, and the tumour returned to its original state. Above the tumour the right temporal artery beat more feebly and a little later than the left. Pressure on the tumour, especially in front of the antitragus, caused pain. There was complete right facial hemiplegia; the uvula was straight; the right side of the throat including the tonsil bulged considerably inwards; the tonsil was hypertrophied, and pulsated, the sensation of fluid from within the throat was not however very marked; there was no marked interference with respiration or deglutition; the heart and large vessels appeared to be healthy; the patient never had syphilis, and had only once or twice in his life tasted spirits; the lymphatics in the neck were apparently healthy.

The diagnosis was aneurism, probably of the internal carotid.

On 18th February Mr. Moriarty ligatured the right common carotid just above where it is crossed by the omo-hyoid muscle; and all pulsation in the tumour ceased. On 28th of Feb., slight pulsation was observed in the tumour which had never hardened as a consolidating aneurism should.

The patient kept in pretty fair health up to October, then the symptoms of malignant disease became unmistakable,—rapid growth, implication of the skin, fungation, severe pain, occasional hemorrhages, glandular implication, fetor, emaciation. He died on 30th November.

On examination of the body next day, the disease was found to be encephaloid of the parotid gland. Peripherally, to a depth of about half an inch, the tumour looked like congested cerebellum; centrally it was like boiled udder (Erichsen); the external carotid was lengthened, it ran at first superficial to the tumour, but afterwards sank into it. The tumour extended very deeply, the pinna was quite separated from the external auditory meatus, and the bone all round the latter was eaten away and covered with a horribly fetid slough. The tumour extended almost to the jugular fossa, it encircled the internal carotid for a small part of its jugular course; lower down it touched the transverse process of the atlas.



In this case most of the symptoms of aneurism were present, but were deficient in quality, especially was this true of the pulsation which was not quite what the thump of an aneurism should be.

[The difficulties of diagnosis in cases like the above are oftentimes very great, and in this connection a series of very excellent papers on this subject by Dr. Stephen Smith, of New York, in the *American Journal of the Medical Sciences* for April and Oct. 1873, and Jan. 1874, may be read with interest.—Ed.]

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*On the Ox Aorta Ligature, and on the Variability of Catgut.*

Mr. RICHARD BARWELL read, at a recent meeting of the Royal Medical and Chirurgical Society (*Lancet*, March 12, 1881), a paper on his experience with the ox aorta ligature and on the variability of catgut. The object of a paper which Mr. Barwell read two years ago was, first, to point out the cases of aortic aneurism which might be benefited by deligation of the right carotid and subclavian; secondly, to show the advisability of leaving all the coats of arteries tied in continuity intact; thirdly, to introduce a flat ligature to carry out this object. The experience, necessarily small, which he could then adduce he now supplements by two additional cases of aortic aneurism treated by tying the above-named vessels with the ox aorta ligature; thus there are three in all. 1. His own case; lived sixteen months in fair health and comfort. 2. A case of Dr. Lediard (now of Carlisle); lived ten months. 3. A case by Dr. Wyeth of New York; now alive and in good health. Besides these Mr. Barwell reports a case in which he tied for aortic aneurism the vessels on the left side of the neck. The operation failed to prolong, but he does not know that it shortened, life. The patient survived thirty hours. The parts of his first case, and of Dr. Lediard's case (by the kind permission of Dr. Hopkins), were exhibited, as were also certain specimens removed from the last case. The arteries of the first were injected; the carotid ligature was *ab origine* tied too loose. It was the first artery Mr. B. had tied with the ox aorta, and he attributed the almost immediate return of temporal pulse wrongly to free collateral circulation. The loop of ligature probably remains on the vessel. The subclavian is quite closed, and, being slit lengthwise, shows the tunics entire. Collateral circulation is well established. Of the second case Dr. Lediard writes: The aneurism is filled with very firm clot. Nothing could have been more satisfactory than the action of your ligature in this case. The vessels were entirely occluded, there being no trace of the bands seen, but a firm clot above and below the seat of constriction, such as is usual in vessels tied in continuity. The parts from the last case are the subclavian, showing where tied no injury to any of the coats—the severed ligature from that artery; the other ligature with the knot entire, and showing no tendency to loosen. Four other vessels have been tied with this ligature—two iliaes (Mr. Holmes and Mr. Johnson Smith), two femorals (Mr. Bellamy and Mr. Barwell); in these four cases the aneurisms did perfectly well, the wounds healed at once, and nothing more was seen of the ligature.

The twelve deligations are more than sufficient to show that the ox aorta ligature becomes absorbed with sufficient slowness to be perfectly reliable in tying vessels in continuity. They show this with the more force because this material is not prepared, the ligatures are cut from the fresh aorta and dried, hence they are uniform. What has happened with those that have been employed will happen with all. This power of becoming gradually absorbed is common to all the soft connective tissues, provided they are perfectly fresh—i. e., not decomposed. The submucous tissue of sheep's intestine, of which catgut is made, would, if it were dried while fresh, act like other soft connective tissues, with no need what-

ever for after preparation. But in the manufacture of catgut this structure is separated from the rest by processes of scraping, a procedure which would be impossible unless the intestine were to some extent decomposed. The various modes of preparing catgut into ligatures are devices for getting rid of the results of this decomposition. Catgut sutures, more easily watched than ligatures, dissolve in very various periods, though prepared in identically the same way. One of the chromic acid processes gives cords, dissolving some in nine, some in nineteen days. The usual (old) method has supplied Mr. B. with sutures, some of which have dissolved in forty-eight hours, some remained persistent, and had to be cut away on the fourteenth day. This results from the various degrees of decomposition in the catgut itself; it cannot happen with tissues that are fresh and require no after-elaboration. When a piece of catgut is buried deep round a large vessel, we cannot be more sure of its behaviour than we can predict the duration of the sutures; nor can we deduce from the good behaviour of certain such ligatures that the particular piece supplied us will act properly. For tying large vessels near the heart, or lying deep, a material whose action is more uniform, which is therefore more reliable, is essential.

Mr. LISTER said it was interesting to learn that the tissue of the aorta resisted absorption for so long a time. He disputed the statement that the preparation of catgut by scraping was due to putrefaction. On the contrary, the fresher the intestine the better the quality of catgut. The rapidity of absorption of improperly prepared catgut was not due to the state of putrefaction, but to the difference between cellular tissue and aortic tissue. Unlike Mr. Barwell, he had found old catgut less readily absorbed than new catgut; but by the new mode of preparation he had described both kinds were brought to the same level in this respect. Speaking of the desirability of dividing the inner and middle coats of an artery tied in continuity, he said that in one of his early experiments (using a ligature of a strip of ox's peritoneum) he had tied the carotid of a calf without dividing the middle coat; but this did not prove that the division of the inner and middle coats was not essential. Indeed, general experience went to show the desirability of such division—incomplete ligature or insufficient injury to the coats being followed by a tendency to the opening up of the vessels. He always applied the catgut ligature so as to divide the inner and middle coats; although whether this was absolutely necessary when the catgut was of the best form—(i. e., not too readily absorbed), he was not prepared to say. Referring to the case recently related by Mr. Treves, where the opening up of the carotid artery after antiseptic ligature was ascribed to the rapid healing of the wound, the subclavian in the same case being perfectly occluded, and the wound not antiseptic, Mr. Lister showed a specimen where the external iliac had been tied for femoral aneurism. An antiseptic silk ligature was used, and the wound followed an antiseptic course. The external iliac artery was wholly occluded. A small knot of silk remained, and a minute abscess occurred at the seat of ligature. Death took place one year after ligature. Here was evidence of extensive obliteration following the application of an antiseptic ligature. On the other hand, secondary hemorrhage from the distal side followed sometimes on the use of ordinary ligatures, from absence of coagulation; and such cases proved that suppuration around the vessel did not invariably lead to obstruction. That failures in occlusion might follow the use of catgut, when not of proper quality, he was fully aware. Such failures were recorded, but the multitude of successful cases were not. He felt sure that if all the cases were reckoned in which the catgut ligature was applied to arteries in their continuity with strict antiseptic treatment, the results would compare very favourably with other methods of ligature. But if surgeons use the catgut ligature and allow the wounds to putrefy, good results could hardly be

hoped for. Such cases as those recorded by Mr. Bryant were due to the lucky chance that union by first intention took place in the deep parts of the wound, thus preventing putrefaction around the ligature. He ventured to think that surgeons who undertake such operations are bound to take measures to avoid putrefaction. At the Cambridge meeting of the British Medical Association he adduced a long series of cases in which no putrefaction occurred, and since then he had had many more cases without putrefaction in a single instance. He did not state this in a spirit of boasting, but simply as a matter of duty. His cases at King's College Hospital were not dressed by himself, but by the house-surgeon and dresser, to whom the praise was due. Surely if such results can be obtained it was worth while to master the simple measures of preventing putrefaction. By the use of such measures the two great dangers to ligature of arteries in their continuity—viz., secondary hemorrhage and diffuse suppuration—may be avoided, and these were objects deserving the best attention.

Mr. TREVES said that in the case he had reported where the carotid after antiseptic ligature became partially reopened, the catgut was of good quality and the coats divided. The small abscess at the seat of ligature in Mr. Lister's case of iliac ligature was hardly consistent with an absence of inflammatory reaction. With regard to the mode of tying arteries alluded to by Mr. Barwell, he had found by experiment that it was almost impossible to divide the inner and middle coats when a double hitch was made in the ligature before tightening it.

Mr. LISTER pointed out that the abscess referred to was of very minute size, and could not have produced any inflammatory action around the vessel.

Mr. HEATH remarked that in one of Mr. Barwell's specimens the carotid artery which had been ligatured was quite pervious, and showed no trace at all of any ligature. The subclavian in the same specimen was completely obliterated. Was there division of its internal and middle coats? He doubted if the surgeon could so graduate the force he applied as not to cut through the inner and middle coats.

Mr. BARWELL, in reply, said that much depended on the mode in which the ligature was tied. He had found that, owing to the roughness of catgut, it was difficult to tell from the sense of resistance whether the artery was being sufficiently pressed on or not. The carotid artery in the specimen alluded to by Mr. Heath had been incompletely tied. The condition of the coats of the subclavian was not ascertained in that specimen; but in another the internal and middle coats were not divided. By means of flat ligatures it was hardly possible to tie the vessel so tightly as to divide the inner and middle coats. He had been struck with the fact that the recorded cases of ligature of the largest vessels were fatal from secondary hemorrhage, and it struck him that this would be obviated by keeping the artery entire. He did not at all suppose that this could only be done by means of the ox aorta ligatures. Mr. Pollock last year tied the subclavian and carotid successfully, using ligatures of kangaroo tendon. Professor Wyeth had used ligatures of the whole thickness of the aorta. Why should not catgut act in the same way? He certainly thought the preparation of catgut was attended by putrefaction, and had attributed its unreliability largely to this. One surgeon used chromic acid many times the strength of that used by Mr. Lister to make the catgut reliable. In the old methods of preparation Mr. Lister had got perfectly reliable ligatures; but in one case where he had supplied Mr. Pemberton with such a ligature a large abscess formed, and the ligature came away. In a case of double popliteal aneurism Mr. Bellamy tied one femoral with the aortic ligature, and with good result. The same operation performed on the opposite leg with the chromic catgut ligature supplied by Mr. Lister was followed by the formation of a sinus leading down to the ligature, the rest of the wound healing

by first intention. These different modes of preparing catgut ligatures may suit one or other form of catgut, but not all, and therefore he said the catgut ligature was not a reliable one. Nor did experiments in blood serum touch the point, for the experiments should be made in the living body in the midst of the tissues.

## Midwifery and Gynæcology.

### *The Treatment of Extra-Uterine Gestation.*

At a late meeting of the Medical Society of the County of New York, Dr. WILLIAM T. LUSK read a paper on the above subject. In commencing he alluded to the fact that extra-uterine pregnancy was a condition which existed much more frequently than was formerly supposed to be the case, and stated that for its present knowledge of the subject the profession was greatly indebted, first to the late Dr. John S. Parry, of Philadelphia, and, secondly, to Prof. T. Gaillard Thomas. As cases of this kind were now known to be comparatively common, the question of treatment, therefore, assumed a high degree of importance.

The natural termination of tubal and interstitial pregnancy was by rupture of the sac, hemorrhage, peritonitis, and death; although there was a certain number of spontaneous recoveries on record, either through the mummification of the fetus or the formation of a fistulous tract through which it was gradually discharged in small portions. In ovarian and abdominal pregnancies the death of the fetus might take place either prematurely or at full term, and in the majority of cases it resulted in suppuration, which was almost sure to be followed by peritonitis and the death of the mother. Occasionally, however, the latter survived, and a fistulous opening was established into the vagina or rectum, or through the external abdominal walls, by means of which elimination took place. But this process of elimination was ordinarily a very slow one, and in the greater number of instances the patient required active interference on the part of the medical attendant, or else death would eventually ensue from blood-poisoning or exhaustion. Again, in a certain proportion of cases the fetus after its death became coated with a bony or earthy crust, and remained as a comparatively innocuous tumour during the rest of the woman's life. Its presence under such circumstances did not prevent the occurrence of pregnancy subsequently.

The treatment of extra-uterine gestation, Dr. Lusk continued, varied according to the stage of pregnancy. In cases of early gestation the indication was plainly to destroy the life of the fetus, and in order to accomplish this without injury to the mother a number of methods had been suggested and practised. One of the most simple was the puncture of the sac, and this could usually be easily effected by means of a trocar introduced through the walls of the vagina or rectum. It was true that a number of recoveries were on record in cases where this plan was adopted, but the results, as a rule, were unfavourable. The second method mentioned was that of injecting poisonous solutions into the sac by means of the hypodermic syringe. The first used was one-fifth of a grain of sulphate of atropia in a small quantity of water; but Friedreich had substituted the fifth of a grain of morphia in a small quantity of water, and had reported two successful cases under its use.

The third method was that of galvanic cautery. One case had been reported, however, and in the latest edition of a chapter on extra-uterine pregnancy

Thomas, namely, the use of the galvanic cautery, was mentioned as having been used by Paquelin, and was mentioned as having been used by Paquelin's cautery. It

was to be employed only after the pregnancy had given rise to symptoms of trouble. The fourth and last method considered was the use of the faradic current. It was to be kept up from five to ten minutes through the seat of the product of conception, and repeated from time to time, if necessary, for one or two weeks, until the shrinkage of the tumour left no doubt that the passage of the current had produced the desired effect. Dr. Lusk then related in detail the history of a very interesting case in which he had called Dr. Thomas in consultation, and in which the faradic current had been employed with complete success. The use of the faradic current, in this connection, he continued, the profession owed to Dr. James G. Allen, of Philadelphia, who reported two cases successfully treated by it in 1872. This method, Dr. Lusk considered, offered a much better chance of recovery than any other, and one great advantage of it was that it was accompanied by no drawbacks. So far as he knew, it had now been resorted to in nine cases, and in every one of them the result had been successful. When it was remembered that in one hundred and fifty cases collected by Hume there were only seventeen recoveries, the advance that had been made could be better appreciated. The subsequent treatment was that for peritonitis.

The second class of cases was that in which gestation was in an advanced stage and the fetus was still living. Here symptoms of exhaustion finally came on, and the patient was in great danger. Laparotomy in such cases, Dr. Lusk thought, ought to enjoy the highest confidence of the surgeon, provided its performance did not increase the jeopardy of the mother. Parry had reported twenty cases of primary operations, with eight children and six mothers saved; but after a careful study of these cases he had found that five out of six of the maternal recoveries ought really to be stricken out. The great and unavoidable danger in such operations was the difficulty or impossibility of removing the placenta.

Finally he considered the class of cases in which gestation was prolonged after the death of the fetus. Under these circumstances it was a well-established rule not to operate during the continuance of labour-pains. The fetus might at length become converted into a hard, innocuous mass, as mentioned at the outset; but this was the exception, and not the rule. Most commonly it underwent maceration, and the patient sooner or later began to suffer from exhaustion and symptoms of septicæmia. In some cases a fistulous opening was formed into the vagina, into the rectum, through the abdominal walls, or even into the bladder. Under such circumstances the treatment consisted in the enlargement of the fistulous tract, and the extraction of the fetus piece-meal through it.

Secondary laparotomy was a justifiable operation, and out of thirty-three cases reported there had been nineteen recoveries. Of the two great dangers of the primary operation, hemorrhage and septicæmia, the first was very greatly diminished by the death of the fetus and the changes ensuing upon it, and the second could be avoided to a considerable extent by the judicious use of the antiseptic precautions now at the surgeon's command. When circumstances permitted, therefore, it was advisable to delay operative procedures until obliteration of the maternal vessels had taken place. Whenever the operation was demanded by the condition of the patient, however, antiseptic surgery offered a fair chance of success.

The paper being before the society for discussion, Dr. JACOB<sup>1</sup> remarked that he had had but one case of extra-uterine pregnancy in his own practice. This occurred some time ago, and he had not treated it by the method so highly recommended by Dr. Lusk, although he was happy to say that the result had been a favourable one. The patient was probably at the beginning of the



third month of gestation, and he had punctured the sac through the vaginal walls. He had also made a second puncture two days afterward. Half a year later, when he examined the patient, he had found a hard substance to the left of the uterus which to the touch reminded him of cicatricial tissue in any other part. Even to this day, although it was seventeen years since the operation, the fundus of the uterus was drawn over to the left by means of the contraction that had resulted, while the cervix pointed decidedly toward the right. With his present knowledge of the subject, and especially after listening to the results mentioned by Dr. Lusk in his paper, he would undoubtedly employ the treatment by the faradic current if he were to meet with another similar case.

Dr. ROCKWELL stated that he had successfully employed electricity in the treatment of three cases. The first was that of Dr. McBurney, which had been alluded to by Dr. Lusk, and which, having been published in full in the *New York Medical Journal*, was well known to the profession at large. The correctness of the diagnosis had been disputed in some quarters, but he did not propose to discuss this point. The second case was that of Dr. Billington, also mentioned in the paper of the evening, and the third he had seen quite recently. Dr. Lusk had spoken particularly of the use of the faradic current, but it seemed to him that the galvanic current would prove the most efficient in destroying the fœtus. In Dr. McBurney's case this was employed, and two applications were made. Before it was resorted to Dr. Thomas, who was one of the consultants, asked him if he could kill the fœtus in this way without doing injury to the mother, and he replied that he thought he undoubtedly could. The result, as was well known, was entirely satisfactory. In Dr. Billington's case he had made but a single application of electricity, and did not know how many had been made subsequently. In the third case there had been but one application—of the galvanic current—altogether, and the recovery had been as successful as in the other instances. These three cases constituted all his experience in regard to this interesting subject, but they at all events went a considerable distance towards settling the point that the fœtus might be destroyed without injury or danger to the mother.

Dr. BILLINGTON said that in his case a positive diagnosis was made by Dr. Thomas, whom he called in consultation, and that he had made four applications after the first one by Dr. Rockwell. The first three times he employed fourteen or fifteen cells, but the last time he used the full strength of the battery, thirty-six cells.

Dr. MUNDÉ had seen three cases of extra-uterine gestation altogether. The first was in the service of Scanzoni, and was fatal. It was a case of ventral pregnancy, and the patient went beyond full term. The second occurred in Braun's clinic. The pregnancy had originally been either interstitial or tubal, and the fœtus at length escaped into the abdominal cavity. The woman was in a very cachectic condition, and it was decided to wait till her death before operating for the purpose of saving the child's life. As soon as she expired laparotomy was performed, but the child which weighed nine pounds, was asphyxiated. The third case occurred in his own practice, and the circumstances were peculiar, the fœtus escaping through the uterine canal, as in Dr. McBurney's case. Before he met with it he had been disposed to doubt the accuracy of the diagnosis in the latter, as he could not understand how the fœtus could pass through the undilated uterine canal. Now, however, he was quite willing to take back all that he had said upon this point, for the case in his own experience had completely convinced him that such a thing was quite possible. In this case he had sounded the uterus with the probe and found it empty, and yet twenty-four hours afterward he found the uterine cavity occupied by the fetal mass, while the tumour which had

previously existed above the uterus had entirely disappeared. In this instance bi-manual examination was unusually easy, and there could be no doubt whatever of this latter fact.

It seemed to him that Dr. Rockwell was correct in his view that the galvanic was to be preferred to the faradic current in these cases. There were two reasons that occurred to him why the galvanic was preferable. First, the faradic current had the effect of causing a contraction of the muscular fibres of the tube, and, secondly, while the faradic current might kill the fetus by the shock it produced, the galvanic had the additional advantage of decomposing the amniotic fluid.

In Dr. McBurney's case Dr. Emmet had made a suggestion, which he thought might prove of service in a certain proportion of instances. "Why not dilate the uterine cavity," said he, "and extract the fetus in this way?" This might, perhaps, be a bold and difficult procedure, but, in the hands of an operator as skilful as Dr. Emmet, could no doubt be successfully accomplished in some cases of tubal or interstitial pregnancy. When rupture of the tube had taken place, he believed it to be quite justifiable to perform laparotomy, as proposed by Kiwisch, and, with all the resources of modern surgery now at one's command, he thought that the prospect of success would be as good as in many bad cases of ovariectomy.

In concluding the discussion, Dr. Lusk remarked that the galvanic current had been proposed in the treatment of extra-uterine pregnancy as early as 1857. At first its introduction in this field of surgery was hailed with great enthusiasm; but afterwards the plan was abandoned because the operators found that they did not obtain as good results from it as from simple puncture of the sac. It was after the use of the galvanic current had been given up that Dr. Allen resorted to the faradic current, and up to the present time (as he had mentioned in the paper) nine cases had been reported in which it had been successfully employed without the occurrence of a single bad symptom. Or, leaving out Dr. McBurney's case, in which he had been under the impression that the faradic current had been used, until corrected by Dr. Rockwell, this evening, there would be eight successful cases on record.—*Boston Medical and Surgical Journal*, March 17, 1881.

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*On the Determination of the Indications for Gastrotomy in Cases of Extra-Uterine Fœtation.*

Dr. C. LITZMANN, in a paper on this subject (*Archiv für Gynäkologie*, Bd. xvi. p. 323), grounds his observations on two cases of the kind on which he operated on successive days, and on an analysis of forty-three cases extracted from various sources.

The cases were: I. Mrs. P., a healthy, well-built woman, aged 25, pregnant for the second time. After her first confinement she had a pelvic inflammatory attack. She came under observation in the ninth month, and had had during her whole pregnancy repeated attacks of abdominal pain, and twice in the early months hemorrhage from the vagina. The urine contained albumen. Passing from the right side of the abdomen above, to the left side of the pelvis below, was a large, oval, completely-fixed tumour, over which the abdominal wall was partially movable, and in which, at its upper part could be felt a child's head. To the left, and about the height of the umbilicus, could be felt the enlarged uterus, which was slightly movable on the mass. The heart-sounds were audible on the right side and high up. Per vaginam, the lower part of the swelling could be felt projecting into the roof; to the right side and to the left, and higher up, lay the os uteri. The uterus was movable, the swelling was not. A right

tubo-uterine pregnancy was diagnosed. Gastrotomy, with antiseptic precautions, was performed, and the placenta was not interfered with. There was only slight bleeding. The child weighed five and a half pounds, was greatly deformed from pressure, and died almost immediately. There was hardly any liquor amnii. A drainage-tube was passed into the cavity, through which it was washed out once or twice daily with carbolic water. On the thirteenth day this washing out caused profuse hemorrhage, which was stopped by compression. Two similar bleedings occurred on the two subsequent days. On the seventeenth day the placenta was removed without much hemorrhage taking place, and on the eighteenth the patient died. The pregnancy was found to be tubal, not interstitial.

Case II., aged 35, pregnant for the seventh time; presented the ordinary history of extra-uterine pregnancy. On examination, the apparently empty uterus was felt pressed backwards by a large, round, fluctuating tumour, in which could be felt the small parts of a child, and over which could be heard the fetal heart. At the end of the thirty-second week the fetal movements ceased to be felt, and at the same time the heart-sounds became inaudible. Five days afterwards the breasts swelled, and a mass, probably decidua, was expelled from the vagina. A fortnight later small quantities of very fetid matter came away from the vagina in gushes. Menstruation came on seventeen days after the death of the child. Nine weeks later gastrotomy was performed, and the fetus removed, along with the placenta and the greater part of the membranes. Though the placenta was cut into by the incision, there was no serious bleeding. The operation was conducted antiseptically, and recovery was uninterrupted.

After contrasting these two cases, the author reproduces from various sources, German, American, and English, accounts of forty-three cases of extra-uterine pregnancy where gastrotomy was performed, and divides them into cases operated on during the life of the child, and cases operated on after its death. He, however, excludes from the reckoning all those cases where a single abdominal incision was made to evacuate an abscess which had formed in the sac. In ten cases of the former class there were nine deaths and one recovery, while in thirty-three of the latter the deaths were fourteen and the recoveries nineteen. After a full analysis of these cases he comes to the conclusion that the dangers of hemorrhage, either during the operation or on the subsequent separation of the placenta, are, in general, too great to warrant gastrotomy during the life of the child, which, moreover, in consequence of compression within its sac, is usually so much deformed and so imperfectly developed as to be unable to live. Accordingly, except in those cases in which the size of the sac and of the living fetus contained in it are such as render it nearly certain that the child is large, well-formed, and likely to be viable, Litzmann maintains that the proper course is to wait for a sufficient length of time after its death to allow of complete thrombosis and obliteration of the placental circulation before interfering. He does not attempt to define the period necessary to wait until the circulation is closed, but thinks it ought to be a good few weeks. In his own case the operation was performed eleven weeks after the death of the child.—*Edinburgh Med. Journal*, Jan. 1881.

*Vesico-Vaginal Fistula treated by the formation of a Recto-Vaginal Fistula and Closure of the Vagina.*

Complete occlusion of the vagina has long been looked upon as the *dernier ressort* in cases of vesico-vaginal fistula in which, either from their size, or the unhealthiness of the tissues bounding them, restoration of the vaginal wall to its integrity

seemed hopeless. But the data from which to judge as to the effect of the urine upon parts not adapted to contain it, and as to what is the way to get the best artificial reservoir, are as yet scanty. A case by Dr. GEZA ANTAL, published in the *Archiv für Gynäkologie*, gives us some information on this head. His case was one in which the loss of tissue was so great that closure of the fistula was thought out of the question. His first thought was to close the vagina in its lower third, letting the urine and menstrual fluid be passed per urethram. But repeated operations for this purpose all ended in failure. Then it occurred to him to unite the labia, first making a recto-vaginal fistula; thus making the rectum a common cloaca, and trusting to the rectal sphincter to retain both kinds of excreta. This he did. While the patient was under surgical treatment, the bladder was washed out with  $\frac{1}{2}$  per cent. solution of carbolic acid. The operation was successful. The result has been that the patient now passes urine per rectum at intervals of from two to two and a half hours. During these intervals she does not complain of any discomfort. Menstruation is regular, the blood escaping without hindrance. Several months after the operation no change could be discovered with the speculum in the rectal mucous membrane. The favourable results above described had lasted, when the author wrote, for seven months after the operation.—*Med. Times and Gaz.*, March 12, 1881.

#### *Extirpation of Uterus and Ovaries.*

At a late meeting of the Obstetrical Society of London Dr. THOMAS CHAMBERS (*Lancet*, Feb. 5, 1881), read a paper on "Complete Extirpation of the Uterus with both Ovaries, weighing ten pounds; recovery." Jane S—, aged forty-three, was admitted into the Chelsea Hospital for Women on May 24th, 1880. In 1870 she first noticed a lump in her right groin, which grew slowly for five years. After this menorrhagia commenced, and gradually increased. Pain and hemorrhage were excessive, and she eventually became too weak to attend as an out-patient, and was remarkably emaciated. The tumour was freely movable from side to side, and was very soft and doughy, but without fluctuation. The pelvic cavity was unoccupied, the vagina drawn up into a cone, with the os and cervix, both small, in the centre. There was a periodical discharge of watery fluid through the vagina. Hence a diagnosis of fibro-cystic tumour was made. Medical treatment having proved of no avail, extirpation of the uterus was proposed to the patient, and she decided in favour of the operation. It was performed on June 2d. The abdominal incision was extended to eleven inches. The broad ligaments were tied with silk at each side, a parallel clamp placed above the ligatures, and the uterus cut away. After a few minutes arterial hemorrhage occurred from a large vessel, which was at once secured. The cervix was then transfixed by a double ligature, the clamp removed, the ligatures tightened, and the stumps replaced. By the twenty-first day the patient was convalescent, a free discharge of offensive matter from the vagina having taken place suddenly on the fourteenth day. The tumour proved to be a lobulated white fibroid, not fibro-cystic, and contained very large vessels.

Dr. HEYWOOD SMITH thought that the term hysterectomy should be limited to amputation of the uterus. He considered oöphorectomy safer than removal of the uterus when life was threatened by flooding and pain.

Dr. ROUTH had some years ago tabulated a number of fibro-cystic tumours as compared with pure fibroids of the uterus, and had found that in fibro-cystic disease menorrhagia was rare.

*The Therapeutics of Ovarian Compression.*

M. BOURNEVILLE (*Le Progrès Médical*, No. 2, 1881) records the following case. He was called to see a young married lady, aged 22, who had suffered from hysteria for some years, but latterly the attack had been of daily occurrence. After one of these, which occurred on December 21, she became paralyzed on the right side, with hemianæsthesia of the same side. During the night of the 30th, spasmodic contraction of the lower jaw supervened. On December 31st, M. Bourneville found the following symptoms: Right hemiplegia and hemianæsthesia, with stiffness of the joint; double ovarian hyperæsthesia; contraction of the jaw. After practising ovarian compression for some minutes, the spasm of the jaw relaxed, and the patient could put out her tongue; but, when the compression ceased, the spasm reappeared. After a short interval, he again compressed the right ovarian region, with a similar result; and, when compelled to desist, from fatigue, he discovered that the spasm of the jaw did not recur, that sensibility returned to the right side, and that the patient could move her right arm and leg. A further compression resulted in the complete disappearance of all the symptoms, so that the patient got up and walked. M. Bourneville remarks that such astonishing results may be obtained, if the medical attendant will employ ovarian compression for a sufficient length of time, and repeat it frequently at short intervals.—*British Medical Journal*, March 5, 1881.

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**Medical Jurisprudence and Toxicology.**
*Poisoning by Atropia successfully treated by Hypodermic Injection of Pilocarpin.*

Professor PURJESZ relates in the *Pester Med.-Chir. Presse*, Nos. 15, 17, and 18, 1880, the case of a hospital patient, aged 19, under treatment for aortic insufficiency and keratoiritis, who drank with suicidal intent the contents of a bottle of solution of atropin which was used for dropping in his eye. The quantity of atropin taken was about nine-tenths of a grain. The pupils were dilated to the maximum, the face was pale; respirations frequent, 40 to 50 in the minute; pulse 140 to 150. The patient was perfectly unconscious; sensibility was not lost. Relying on the observation by Luchsinger of the physiological antagonism between atropin and pilocarpin, Dr. Purjesz injected in succession six syringefuls of a one per cent. solution of pilocarpin (about 0.9 grain in each); and repeated the injection at intervals from five to eight minutes. After the tenth injection, the patient began to speak; the pupils were distinctly narrower; and, as the secretion of saliva and sweat had not yet appeared, another injection of nine-tenths of a grain of pilocarpin was made. After this dose, the patient gave rational answers; the pulse fell to 80; the pupils regained their normal size, but reacted rather slowly to light; the respiratory movements became normal, the skin moist, and all the symptoms of poisoning by atropin disappeared.—*British Med. Journal*, Feb. 26, 1881.

*Localization of Strychnia.*

Husemann, Dragendorff, and other chemists have advised, in cases of poisoning, that chemists in looking for strychnia should especially direct their researches to the liver. Dragendorff alleges that he has never been able to isolate the alkaloid



from the brain, even when the whole organ has been used for the chemical examination. He further states that Gay has isolated strychnia from some special parts of the nervous system, as for example, the medulla oblongata, and the pons Varolii, and that he has himself succeeded in extracting it from the medulla oblongata in cases of poisoning. LAJOUX and GRANDRAL have published their results from analysis of the brain of a person who died from the effects of 2.35 grammes of tincture of nux vomica, corresponding to only 0.0036 gramme (.0525 grain) of strychnia. Three-fourths of this were employed subcutaneously, and the rest was administered by the mouth. Although the quantity was very small, yet strychnia was found throughout the brain, and gave its characteristic reaction. If this observation be correct, chemists will do well to examine the brain in cases of suspected strychnia poisoning, as well as the other organs.—*British Med. Journal*, Feb. 12, 1881.

#### *Poisoning by Glycine.*

Dr. LÉONFFRE, Physician of the Orphan Asylum at Rocca, relates in the *Lyon Médical* cases of poisoning which he has observed in several orphans of the institution. These young children had been chewing fragments of roots of glycine instead of Spanish liquorice. At the outset, they complained of a gastralgic pain; the face became congested, and the cheeks reddened; but this reddening was very transient, and gave way to paleness as soon as the children felt nauseated. A few minutes afterwards, vomiting commenced, consisting first of alimentary matters, then of bile and mucus. The patients then complained of a great feeling of uneasiness; the face was pale and pinched; the eyes sunken, and surrounded by blue lines; the pupils were largely dilated; the skin, and especially the extremities, cold; muscular weakness was very marked; and the patients complained of feeling their legs bend under them. Among those who were most ill, an irresistible tendency to sleep was observed. The children complained of chill; the pulse remained at 80, very weak; and in two cases the voice was imperceptible. The capillary circulation was defective; and in two patients, whose pulse was hardly perceptible, the extremities were reddened, and the face, as well as the skin of the trunk, marbled with blue lines. The respiration was normal, and rather slackened than obstructed. There was neither delirium nor convulsion. The intellectual faculties were intact, except for the torpor. The secretions were not disturbed, the skin not presenting that appearance of sweating which is met with in analogous conditions. The action of the glycine on the intestinal tube was not marked in any of the eighteen cases, except in one girl, who was purged eleven times. The accidents observed were rapidly counteracted by the administration of hot tea and coffee, and the application of hot water bottles. In one case only, energetic friction was necessary to combat collapse and the tendency to sleep. Dilatation of the pupil was the earliest and most constant of all the symptoms. The quantity of glycine chewed by each child must have varied from one to six grammes (fifteen to ninety grains). Thus it seems that glycine possesses marked toxic properties, and that it acts like tobacco. This action of glycine was unknown to Dr. Léonffre, and he has not found it mentioned anywhere.—*British Med. Journal*, Jan. 1, 1881.

## MEDICAL NEWS.

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### IMPURE ICE AS A CAUSE OF INTESTINAL DISEASE.

That period of the year, when ice (which is now used by all classes to an extent entitling it to rank as a *necessity* instead of, as formerly, a *luxury* of life) is employed in various beverages to the amount of millions of pounds, should not delay much longer, so that a few words of caution in regard to the purity of this article will be seasonable.

It is popularly believed that water frees itself from dangerous organic matter, as it does from some saline contaminations, during the process of freezing; and also that the vegetable or animal germs of typhoid and other zymotic fevers are killed, or at least sterilized by congelation of water in which they exist. Both of these ideas, however, are unquestionably erroneous, as has been repeatedly proved by various experiments which ignorant hotel-keepers try, without the least intending it, upon their guests on a scale which would make the boldest vivisector stand aghast before the suffering inflicted, even if it were only upon the brutes which form the subjects of his researches.

Such was notably the case in an epidemic of intestinal disorder which occurred at Rye Beach, N. H., a few years since, of which an excellent account was published in the Report of the Massachusetts Health Board for 1876, by Dr. A. H. Nichols, who attended most of the persons suffering from the malady. It appears that early in the season a mild form of gastro-intestinal disturbance made its appearance among the guests of a particular hotel at this watering-place. The symptoms were, in general, giddiness, nausea, or vomiting, diarrhoea, and severe abdominal pain, accompanied by fever, loss of appetite, and mental depression. The disorder was at first attributed to the well-water of the place, which is strongly impregnated with sulphate and carbonate of lime and magnesia, but the peculiar grouping of the patients almost exclusively among the sojourners at a single hotel, accommodating about three hundred, whilst occupants of another hotel and of neighbouring cottages, to the number of about seven hundred persons, were free from illness, strongly indicated some specific local origin. The well-water was almost immediately suspected of sewage contamination, but, on inquiry, it was found that the wells were all sunk in an elevated ridge safely removed from drains, cesspools, and other sources of pollution. Moreover, it was also ascertained that in some cases the individuals affected, being suspicious of the water, had limited themselves to other beverages; but, as afterwards transpired, had not hesitated

to use ice, either melted or otherwise. The drainage system of the establishment, which had recently been put in complete order, was found almost faultless, and the milk-supply of unquestionable purity; but, on the attention of the examining physician being directed to the stock of ice used in the hotel, conclusive proof of its dangerous quality was promptly obtained. A resident of the place stated that, on testing a portion of the ice the previous winter, he had experienced nausea and distress for the remainder of the day. Two gentlemen having taken a quantity of ice with them upon an excursion, during which they drank the water formed from it, were made violently ill. Both the house in which the ice was stored and the water from the melted ice gave off a decidedly disagreeable, or even offensive, odour. Finally, a visit to the pond from which the ice had been gathered disclosed the fact that much of its water was dark-coloured, foul, and highly contaminated with filthy marsh mud and decomposing sawdust. Chemical analyses showed that both it and the suspected ice contained a large excess of organic and volatile impurities, including .04 of a grain per gallon of albuminoid ammonia. The crucial test, however, of injurious quality pertaining to this ice was afforded by its disuse in the hotel, coincident with which was noticed an abrupt amelioration of the symptoms in all who had previously been ill, and the entire absence, so far as known, of any new cases. The ice was partaken of during a period of six weeks by about five hundred persons. Of these, the majority escaped without injury; a large number suffered slight or temporary attacks of illness; and twenty-six adults manifested grave, continued, and characteristic symptoms.

The Connecticut State Board of Health (Report for 1879) informs us that, in several instances, attention has been drawn to sewage-contaminated ponds with ice-houses upon their borders, and that several isolated cases of enteric disease, and one death, from the free use of ice polluted by sewage, have been recorded in that State during the year.

The curious natural experiment of the United States vessel "Plymouth," an elaborate report of which was reviewed in the *American Journal of the Medical Sciences* for Jan. 1881, shows conclusively that the germs of yellow fever are not infallibly destroyed by a freezing, probably not by a zero temperature. Without venturing on any of the unsound reasoning from analogy, too common among medical theorists, this fact alone is sufficient to warn us of the possible danger that the poisons of enteric fever and other zymotic affections are not destroyed by the congelation of the water in which they float, even without the direct and positive testimony such as that given above that impure ice, especially when gathered from ponds polluted by sewage, may constitute a prolific cause of disease.

*Resection of the Stomach.*—The health of the patient on whom Professor BILLROTH performed the operation of removal of a carcinomatous portion of the stomach (see last number of *Medical News and Abstract*, page 232), is satisfactory. The wound is perfectly healed, and the sutures were removed at the end of last week. The patient takes milk and wine, only complaining of constipation, which is relieved by enemata, and of a bed sore on the sacrum, which was caused by her depressed condition. All experiments with semisolid food have failed, and the nourishment has been confined to milk.—*British Medical Journal*, March 5, 1881.

Under date of April 2, we learn that the patient has returned home apparently well, and able to take solid food. Dr. Billroth has since performed the operation twice. The second patient survived eight days. The third, on whom he operated on the 12th of March, for a considerable cancerous tumour, died in twelve hours. The facility of the operation, the absence of peritoneal reaction, and the holding power of the sutures, were apparent in all the three cases.

*Health of New York.*—Smallpox has increased considerably during March, the number of cases being more than double that reported for February. Scarlet fever and diphtheria have decreased, while typhoid fever and measles have increased. Considerable alarm has been created by the appearance of typhus fever, which has not prevailed in the city for a number of years. The first cases were found in a densely crowded lodging-house, at the corner of Prince and Marion Streets, where four hundred lodgers were nightly sheltered. These cases were at once removed to special pavilions on Blackwell's Island, and the premises thoroughly disinfected by the Health Board. During the first week of the epidemic 41 cases were reported. During the second week only 5 cases were discovered, but the number rose to 45 in the third week (ending April 10). The type of the disease has been comparatively mild, although many cases have terminated fatally. On April 4th there were 99 cases of variola and 51 of typhus at the Riverside Hospital. On April 14th there were 119 of variola and 90 of typhus fever.

The medical profession of New York has shared the lively and unabated popular interest on the subject of street cleaning. The April number of the *Medical News and Abstract* contained the resolutions adopted by the Academy of Medicine having reference to the causes for the present increased malignity of disease, and the alarmingly high rate of mortality in the city. These resolutions were presented to the Citizens' mass-meeting held on March 18th. A committee of twenty-one, appointed at that meeting, to devise measures for securing a rapid and thorough cleansing of the streets, prepared and presented to the Legislature a bill removing control of the Street Cleaning Bureau from the Police Board and conferring it upon the Mayor, with power to nominate a superintendent of the work. The bill was passed by the Senate on March 30, but rejected on April 8 by the Assembly, which body adopted a substitute, intended to reserve the patronage to the dominant party, giving the Board of Health power to confirm the Mayor's nominee for superintendent. A second indignation mass-meeting was held April 12, and resolutions condemning the action of the Assembly in rejecting the bill of the committee of twenty-one, and urging its immediate reconsideration and adoption, were unanimously passed. A large and enthusiastic mass-meeting of physicians in favour of the Citizens' street cleaning bill was also held on April 13, at Chickering Hall. Dr. Willard Parker presided, and addresses were delivered by Drs. Barker, Dalton, Sayre, Loomis, and other eminent medical men. Resolutions were adopted protesting against the rejection of the Citizens' bill by the Assembly, and demanding that the representatives of

the city in the Assembly reverse their action, and endeavour to secure the passage of the bill. A committee of five were appointed to present the resolutions to the Governor of the State, the President of the Senate, and the Speaker of the Assembly.

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*Medical Experts.*—A trial took place recently in the Common Pleas Court of Montgomery County, Ohio, which afforded an incident of some interest to the profession. It was a suit for damages alleged to have been inflicted by one woman on another while scuffling in a playful way. Expert testimony was called as to injuries to the shoulder-joint and arm, and it was proposed that a personal examination be made of the plaintiff and an opinion given as to the condition of the parts. Dr. Reeve, of Dayton, being on the stand, demurred to this and appealed to the Court, urging the injustice of a medical witness being compelled to make such an examination without compensation, and declining to make it unless under direct order of the Court. Judge Elliott in reply fully and freely recognized the fact, that a professional man's education was his capital and ought not to be called upon without recompense. The attorneys also openly deplored the injustice of the law in such cases, and admitted that a reform was much needed. Finally, the party interested agreed to pay a fee, and the trial proceeded.

There is no doubt that Dr. Reeve's example might often be followed to advantage. The Courts would, we believe, generally recognize the injustice of the proceeding, and one so widely different from that pursued toward lawyers in similar circumstances, as was pertinently urged by Dr. Reeve.—*Cincinnati Lancet and Clinic*, March 12, 1881.

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*Revision of the German Pharmacopœia.*—The revision of the German Pharmacopœia began on October 15th, on which day the commission appointed for the purpose commenced a series of sittings, presided over by Dr. STRUCK, for the purpose of making preliminary arrangements, and concluded their work on the 25th of the same month. A further meeting of the committee will be held, probably next Easter, for the final revision of the text; meantime the editing is entrusted to the chemists and pharmacutists of the commission, with the addition, as medical experts, of Professors Ziemssen, Gerhardt, and Eulenbergh. The composition of the commission is very comprehensive, and is considered in Germany to be very happy, including the representatives of all those who are interested in the work—physicians, public medical officers, clinicists, pharmacologists, chemists, and apothecaries. We quote it here because it is interesting as compared with that of the British Pharmacopœia Committee. The new pharmacopœia, unlike the old Prussian, Austrian, and Swiss Pharmacopœias, will be published in the German language, including the heading of each article, to which, however, the Latin titles will be added. The title of the new edition will be *Arzneibuch des Deutschen Reiches*. Only two voices were raised, it is said, against this resolution; those, it is believed, of Flükiger and Poleck, who considered it might be inconvenient not to have the pharmacopœia in the international Latin tongue, especially in reference to the possibly approaching international pharmacopœia. This was overruled, however, on the ground that such an international pharmacopœia is still far distant; and that, even if it should be published, it will certainly very rapidly be translated into the language of each country; just as all Latin pharmacopœias have always had alongside of them translated pharmacopœias of much greater popularity. The commission has treated the question of striking out unnecessary drugs and preparations in a



very radical fashion. It is said that, of 797 articles in the German Pharmacopœia, no fewer than 370—that is to say, nearly a half—are eliminated by this commission. Among them are acetum colchici, aconitin, ammonium carbonicum, pyrooleosum, valerianates of bismuth and of quinine, bromine, prepared shells, elemi, dry and inspissated ox-gall, several preparations of iron, kino, logwood, mastich, acetate of morphia, santionate of soda, oxymel of colchicum and of squills, guaiacum and scammony resins, lactate and valerianate of zinc, etc.; as well as about half of the hitherto officinal distilled waters, plasters, extracts, ethereal oils, tinctures, and ointments. They are proceeding much more cautiously in adding new agents to the pharmacopœia. They have added salicylic acid, nitrite of amyl, apomorphin, physostigmin, jaborandi, and pilocarpin; on the other hand, they have rejected condurango, coto bark, quebracho bark, leaves of eucalyptus and the preparations thereof, araroba and chrysophanic acid, butyl-chloral, bromide of camphor, gelsemium, etc. In the matter of antiseptic dressing, materials have been added, as concentrated carbolic solution, and carbolic water prescriptions formulated for absorbent cotton-wool; catgut in three strengths, gutta-percha paper, thymol, and acetate of alumina. The constitution of this committee appears to have enabled it to set to work with great vigour, and get through it with rapidity.—*British Medical Journal*, Jan. 15, 1881.

*The Medical Law of New York.*—The Act of 1880 provides that no person shall "practise physic or surgery within the State unless he is twenty-one years of age, and either has been heretofore authorized so to do pursuant to the laws in force at the time of his authorization, or is hereafter authorized so to do," either by a license from the regents of the University of the State of New York, a diploma of an incorporated medical college within the State, or a diploma of a similar institution without the State, provided it be endorsed as approved by some proper medical faculty of the State. But every physician and surgeon, with the exception of practitioners of ten years' standing and a few others, must register in the office of the clerk of the county where he is practising, or, if hereafter authorized, intends to practise, his name, residence, place of birth, together with his authority to practise, to all of which he must subscribe. He also must make affidavit as to the manner of his license or authority, the date of the same and by whom granted, which, if wilfully false, shall subject the affiant to conviction and punishment for perjury. Any one who violates either of these provisions or the one in regard to practising, or who shall practise under cover of a diploma illegally obtained, shall be deemed to be guilty of a misdemeanor, and on conviction shall be fined not less than fifty dollars nor more than two hundred dollars for the first offence, and for a subsequent offence he shall be fined not less than one hundred dollars nor more than five hundred dollars, or imprisoned not less than thirty days, or both.—*Popular Science Monthly*, April, 1881.

*Cremation in the United States.*—According to the *Popular Science Monthly*, April, 1881, steps have been taken in New York to provide the necessary organizations to furnish facilities for cremation. A draft of a charter has been approved by the persons concerned in the movement, for the formation of "the United States Cremation Company (limited)," with a capital of fifty thousand dollars, whose peculiar object shall be "to cremate the human dead in the quickest, best, and most economical manner." A plan has also been adopted for the formation of the "New York Cremation Society," as an association distinct from the purely business enterprise, having for its object "to disseminate sound

and enlightened views respecting incineration as preferable to burial, and to advance the public good by offering facilities for cremation."

*Fracture of both Clavicles Simultaneously.*—In the *Gazzetta Med. Lombardia*, Jan. 8, an abstract is given of a case in which both clavicles were simultaneously fractured—this being so rare an occurrence that Malgaigne only met with it once in 2358 cases of fracture of the clavicle; and Gurlt, in his great work on Fractures, states that he has only been able to meet with fifteen recorded cases. Sayre's apparatus was employed, and the patient was perfectly cured in thirty days, no trace of deformity being visible.—*Med. Times and Gazette*, Jan. 29, 1881.

*The Columbian Institute.*—A medical institution called the Columbian Institute has been recently incorporated in New York City. The object of the institute is to provide an establishment at which patients may, if they desire, be treated by their own physicians. The institute will chiefly devote itself to the treatment of chronic diseases.

*Training Schools for Nurses.*—A training school for nurses has been established in connection with the Brooklyn City Hospital. It is conducted upon the same plan as the New York training school connected with Bellevue Hospital. The report of the latter school for 1880 states that sixty-three nurses are now in the institution. The school has been in operation since 1873, and has graduated one hundred and twenty nurses. The demand for training school nurses in private families far exceeds the supply. Two graduates are about to establish a training school in connection with the Cook County Hospital, Chicago.

*Inspection of Plumbing.*—A bill requiring the plumbers of New York and Brooklyn to register their names, and giving the Board of Health supervision over all new plumbing has been presented to the New York Legislature. The bill was framed by the Society for Sanitary Reform.

*International Medical Congress, London, 1881.*—The following subjects are proposed for discussion in Section III. (*Pathology and Morbid Anatomy*): 1. The relations of minute organisms to certain specific diseases, such as relapsing fever, ague, and malignant pustule [anthrax]. 2. The relations of minute organisms to unhealthy processes arising in wounds, and to inflammation in general. 3. Tubercle: (a) Its histological characters. (b) Its relation to inflammatory processes in different organs, such as the lungs, lymphatic glands, bones, and joints. 4. The origin of cancer and sarcoma, and their relation to the normal tissues in which they arise. 5. Diseases of the kidneys: (a) The morbid histology of the different forms of Bright's disease. (b) The relation of renal disease to disturbances of the general circulation, and to alterations in the heart and bloodvessels. 6. Recent researches in the morbid anatomy of the brain and spinal cord.

For the pleasure of the members of the Congress the Reception Committee are arranging a series of entertainments and excursions during the week of the Congress, of a most attractive character. On Tuesday, Aug. 2d, an informal reception will be held in the afternoon, at the Royal College of Physicians, which occasion, it is thought, will afford an excellent opportunity for introductions. On

the evening of Wednesday, the English members will entertain their foreign *confrères* at a *conversazione* at the South Kensington Museum. Entertainments will also be given on Thursday and Friday; but up to this time their nature has not been definitely fixed upon. On Saturday, August 6th, there will be no business meetings later than 1 P. M.; and excursions will be made to various places of interest in the neighbourhood of London. On this day the Harvey Memorial Committee purpose that the statue of Harvey shall be unveiled at Folkestone. A special train by the Southeastern Railway will take between one and two hundred members of the Congress, with other distinguished persons, to Folkestone, free of cost, where they will be received by a deputation of local magnates, and conducted to the statue which will be unveiled. After the completion of the ceremony, the mayor and corporation will entertain their visitors at a banquet in the town-hall. This visit will afford an excellent opportunity of seeing an English watering-place at its best. On the same day, a charming excursion has been planned by Dr. Langdon Down, who has generously invited five hundred members of the Congress to a garden party at Normansfield, Hampton Wick. Dr. Down will meet his visitors at Teddington station, and will guide them through Bushy Park to Hampton Court Palace. The party will then proceed by water to Normansfield, where a select party of Dr. Down's friends will meet them. On the same day Sir Joseph Hooker will receive a number of members at Kew Gardens. On Sunday special services will be held in St. Paul's Cathedral and Westminster Abbey, at which Canon Liddon and Dean Stanley will respectively officiate. The Royal College of Surgeons has signified its intention of entertaining the Congress at a *conversazione*.

A temporary museum will be opened during the sessions of the Congress in the rooms of the Geological Society for the exhibition of living examples of certain rare diseases, microscopic specimens, and objects of novelty or rarity having reference to the processes of disease or the results of injury.

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*Prescribing over the Counter.*—The Medical Association of the District of Columbia held a meeting April 5th to consider the question of certain abuses by druggists in prescribing over the counter, and in the unwarrantable renewal of prescriptions. They adopted the following resolutions:—

*Whereas*, It has come to the knowledge of the Medical Association of the District of Columbia, through information of several of its members, that a number of druggists of this city are in the habit of prescribing for and taking charge of cases of sickness; and

*Whereas*, The diagnosis and treatment of disease belongs to the province of a distinct profession, and as a pharmaceutical education does not qualify the pharmacist for these responsible offices, and

*Whereas*, The renewal of certain prescriptions merely at the request of the patient or other person who may be ignorant of the evil results attending the continued use of a medicine ordered for the occasion only, may work serious injury to the patient, therefore be it

*Resolved*, That the public welfare, as well as the best interests of both the profession of medicine and that of pharmacy, are opposed to druggists usurping the functions of the physician by prescribing or giving medical advice.

*Resolved*, That when the physician shall consider it desirable that a prescription should not be renewed, he will write on it "not to be renewed," and that prescriptions so marked should not be renewed by the pharmacist without order of the profession.

*Resolved*, That members of this Association will withhold their support and patronage from such druggists as thus fail in their duty to their own profession, or disregard the directions of the physicians in reference to renewals.

*Resolved*, That the interests of the medical profession are safe in the hands of reputable pharmacists, who govern themselves according to the code of ethics of the College of Pharmacy of the District of Columbia.

*Resolved*, That professional courtesy between physicians and pharmacists, demands that a due regard be shown towards each other in all matters pertaining to prescriptions, that neither may be unduly reflected upon nor compromised.

*A Triumph of Dentistry*.—At the last meeting of the Medical Society at Strasburg, reported in the *Medical Gazette* of Strasburg, Dr. JULES BÖCKEL presented, in the name of M. Sauval, dentist, a lady for whom the latter had extracted a small molar tooth for dental caries, with violent pain; and, having found it slightly carious to the bottom of its root, he sawed off the points of the root, filled it with gold carefully throughout the carious channel, and then reimplanted the tooth. The lady was free from all her pain; the tooth re-established itself solidly in the mouth; and, at the date at which she appeared at the Society (three weeks after the operation), the tooth served for mastication as well as her other teeth. This is certainly a remarkable example of what is technically described as dental autoprosthesis with aurification.—*British Medical Journal*, Jan. 29, 1881.

*Endowment of Presbyterian Hospital, New York*.—An effort is being made by the officers of the Presbyterian Hospital, N. Y., to secure an endowment fund for that institution. One of the directors has promised to give \$60,000, provided \$100,000 be contributed by others.

*A Swindler preying upon the Doctors*.—An impostor personating Dr. Geddings, of Charleston, S. C., has recently swindled a number of the leading physicians of New York. He states that his funds have been exhausted, and he has obtained considerable sums from his victims for the ostensible purpose of returning home.

*Graduates in Medicine in 1881 (continued from p. 248).*

Columbus (O.) Medical College,	63
Cleveland Medical College,	51
Starling Medical College (Columbus, O.),	36
Missouri Medical College (St. Louis),	119
St. Louis Medical College,	43
College of Physicians and Surgeons (St. Joseph, Mo.),	14
Detroit Medical College,	27
Memphis Hospital Medical College,	18
Chicago Medical College,	45
Albany Medical College,	58
Columbian University (Washington, D. C.),	5
University of Georgetown (D. C.),	5

We are requested to state that in addition to the 110 graduates at the March commencement of the University of Pennsylvania, there were 5 graduates at the preceding commencement in June, making a total for the year of 115.

*The New York Smells.*—The Committee of the State Board of Health has, during the past month, prosecuted its investigations into the source of the offensive odours emanating from Hunter's Point, Brooklyn, and has visited the factories suspected of producing the odours. A bill has been prepared which provides for the abolishment of the Hunter's Point nuisances.

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*Sanitary Convention.*—A very successful Sanitary Convention was held at Battle Creek, Mich., March 29 and 30, under the auspices of the State Board of Health. A number of excellent papers were read, and there was an instructive exhibition of sanitary apparatus and appliances.

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*Scarlet Fever in Charleston, S. C.*—For some weeks a serious type of scarlet fever has prevailed among the children of Charleston. During March there were twenty deaths. The first case was reported on the 1st of January, and the first death occurred on the 1st of March. The death rate has increased, and there has been no diminution in the number of cases. It is estimated that there have been nearly two hundred cases. In some instances the attacks have been very severe, and in one case death resulted in sixteen hours after the first symptoms of the disease appeared.

The fever has so far been mostly confined to the white children, not more than one case in ten of the whole number reported having occurred among the coloured people.

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*A Congress of Laryngology* is announced for September, 1882, in Paris. The members of the organizing committee are MM. Fournier, Gouguenheim, and Krishaber.

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*Influence of the Antiseptic Method on Medical Jurisprudence.*—In a lecture at the close of his last session, Professor NUSSBAUM (*Wiener Medic. Presse*, Nos. 21-23, 1880), discusses the consequences following to medical jurisprudence from the revolution in surgical opinion caused by the antiseptic method. So strong an adherent is he of this method, that he would extend the statute of the German penal code, dealing with bodily injuries and damage to health through negligence or malapraxis, to such a case as a surgeon examining a wound with a finger not disinfected according to the strictest antiseptic principles. He considers, also, that the duty of carrying out these principles excuses the medical man from making, in a medico-legal case, that thorough and searching examination of a wound formerly required.—*British Medical Journal*, Jan. 8, 1881.

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*Sea-side Nursery.*—St. John's Guild, of New York, is about to erect a sea-side nursery at Cedar Grove, Staten Island. The object of the nursery is to receive from the Floating Hospital of the Guild such children as are in need of a prolonged sojourn in the bracing sea air. The nursery will be ready for occupation in June.

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*Private Gynæcological Hospital.*—Dr. T. GAILLARD THOMAS, of New York, has recently built a private hospital, for the treatment of women's diseases, at the corner of Lexington Avenue and Fifty-second Street, New York. The resident physician is Dr. Jas. B. Hunter.



*Physicians' Mutual Aid Association of New York.*—The twelfth annual report of the Board of Directors of the New York Physicians' Mutual Aid Association states that the Society is prospering. The funds have been increased from \$3000 to about \$6000. The number of members is 350.

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*Kentucky State Medical Society.*—This society met in twenty-sixth annual session at Covington, on April 5, 6, and 7. Dr. L. B. Todd, of Lexington, President in the chair. A number of papers were read. The following officers were elected for the ensuing year. President, J. W. Holland, M.D., of Louisville; Vice-Presidents, Drs. Charles Munn, of Nicholasville, and C. H. Thomas, of Covington; Secretary, Dr. L. S. McMurtrie, of Danville. The next meeting will be held at Louisville, on the first Wednesday in April, 1882.

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*University of Pennsylvania.*—Dr. Charles K. Mills has been appointed Lecturer on Mental Diseases. This course of lectures will be supplemented by clinical instruction at the Philadelphia Hospital, the Pennsylvania Training Institution for Feeble-Minded Children, and the State Hospital for the Insane at Norristown.

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*University of Maryland.*—Professor L. McLANE TIFFANY has been elected to the chair of Surgery in this institution, rendered vacant by the resignation of Prof. Christopher Johnston. Dr. I. E. Atkinson has also been elected Professor of Pathology and Clinical Professor of Dermatology.

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*Munificent Gifts.*—Col. Thomas A. Scott, of this city, has given \$50,000 to the Jefferson Medical College, \$50,000 to the University of Pennsylvania, and \$30,000 to the Philadelphia Orthopædic Hospital and Infirmary for Nervous Diseases. The Hospital of the University of Pennsylvania has just received a bequest of \$10,000, the income of which is to be applied to the support of free beds for cases of recent accidents.

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*West Virginia State Board of Health.*—The Legislature of West Virginia has just passed a bill establishing a State board of health with power to appoint a local board in each county, and regulating the practice of medicine.

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*Night Medical Service.*—A bill to establish a night medical service in Brooklyn has been favourably reported by the Committee on Public Health. The New York night medical service responded to forty-one calls for assistance in January, and to sixty calls in February.

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*Epidemic among Horses.*—A new equine epidemic, characterized by the simultaneous occurrence of symptoms resembling those of glanders and of spinal meningitis has prevailed in the stables of several New York horse-car companies during the last few weeks. It is rarely fatal.

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*Prize Awarded to Mr. Lister.*—At the meeting of the Academy of Sciences in Paris on March 12th, the Bonnet prize of 6000 francs (\$1200) was awarded Professor Lister, for his application of M. Pasteur's researches to the improvement of the art of healing.

*Meetings of National and State Medical Societies* will be held during the month of May as follows:—

American Medical Association at Richmond, Va., on Tuesday, May 3.

American Laryngological Association, at Philadelphia, on Tuesday, May 10.

State Medical Society of Arkansas, at Little Rock, on Wednesday, May 4.

Iowa State Medical Society, at Dubuque, on Wednesday, May 25.

State Medical Society of Kansas, at Topeka, on Tuesday, May 10.

Medical Association of the State of Missouri, at Mexico, on Tuesday, May 17.

Medical Society of North Carolina, at Asheville, on Tuesday, May 31.

Pennsylvania State Medical Society, at Lancaster, on Wednesday, May 11.

*Guy's Hospital.*—The nursing question at Guy's is virtually ended by the adoption of a series of new regulations for the nurses, which have been submitted to and approved by the medical officers, and which we are glad to learn concede all for which they had contended. Under the new regulations the nurses are placed under the direction of the medical officers.

*Library of the New York Academy of Medicine.*—Dr. Fordyce Barker, President of the Academy, has intimated his generous intention of giving to the Academy a collection of books, which he is seeking to make as complete as possible, in the department of obstetrics and gynaecology.

*A Good Example for Hospital Managers.*—A wise and proper recognition of the medical staff has lately been shown in the government of St. Bartholomew's Hospital, London, by the election of four members of the staff as members of the Board of Governors. We commend the example to the governing boards of all hospitals.

*Banquet to an American Consul.*—In the beginning of March a banquet was given by many of the leading citizens of Bristol, England, to the Hon. Theodore Canisius, M.D., who, after six years' residence there as United States Consul, was about to leave the city. At the conclusion of the banquet an address was presented to Dr. Canisius, signed by the Mayor of Bristol and several of its more influential inhabitants.

#### *Another Literary Piracy.*

A few months ago we were constrained to expose the piracy by a London publishing house of Dr. Keen's "American Health Primer" series, and now we are under the similar necessity of calling attention to another piracy which is, if possible, even more disgraceful, inasmuch as it not only appropriates the work of an American author, but also publishes it under the name of a young London physician.

About a year and a half ago Dr. George R. Cutter, of New York, as "the result of many years of industrious research," published a very useful "Dictionary of the German Terms used in Medicine," which was favourably received by the profession. Mr. H. K. Lewis, of London, has just issued a "German-English Dictionary of Words and Terms used in Medicine," by Fancourt Barnes, Physician to the British Lying-in Hospital. In a letter to the *Medical Record* Dr. Cutter says of it, "After a careful examination I find that Dr. Barnes has copied

nearly every one of my words, with their definitions; the latter in the same sequence and with the same punctuation. The few typographical and other errors which escaped correction in the first edition and remained in my plates have, in nearly every instance, been so faithfully copied as to appear ludicrous, were it not for the fact that this alone affords sufficient proof of a shameless piracy. . . . In short there is not a page in his book which does not reveal the fact that he has stolen my whole work, adding a very few medical words and a number of chemical and zoological terms which may be found in the ordinary German dictionaries. I do not find more than a score of my words omitted, and the two books contain the same number of pages."

**OBITUARY RECORD.**—Died at Philadelphia on the 31st of March, in the 75th year of his age, ISAAC RAY, M.D., LL.D., formerly superintendent of the Butler Hospital for the Insane, Providence, Conn. Dr. Ray was widely known as an eminent authority in all matters relating to insanity, and his writings are held in the highest esteem. He was born at Beverly, Mass., in 1807, graduated in Bowdoin College, and commenced the practice of medicine in 1827. He was one of the originators of the Association of Medical Superintendents of American Institutions for the Insane and was its President from 1855 to 1859. A biographical sketch of Dr. Ray will appear in the next number of the *American Journal of the Medical Sciences*, to which journal he was a frequent contributor.

— At Louisville on April 2d, aged 42 years, RICHARD OSWALD COWLING, M.D., Editor of the *Louisville Medical News*, and Professor of Surgery in the University of Louisville.

Dr. Cowling was prominent among Kentucky's most eminent surgeons, gifted citizens, and beloved sons. His personal traits are thus described in a minute adopted by the Medical Faculty of the University of Louisville: "As a teacher, Dr. Cowling was comprehensive, luminous, and exact; as an operator, bold but cautious, daring but prudent; as a man, dignified, upright, generous, brave, with a child's simplicity of ways and disposition. A scholar of rare attainments; a thinker original, logical, sustained; a writer incisive, varied; a successful author, he added to the fame of the University which he entered as a pupil and where in time he rose to the rank of professor, a position which he in every way adorned.

At a meeting of the physicians of Louisville, held April 4th, the following resolutions were adopted.

*Whereas*, Providence has removed by death Dr. Richard O. Cowling, a valued and distinguished member of the medical profession of this city, and a man known and appreciated by this community; therefore

*Resolved*, That in the death of Dr. Cowling the profession has lost a member of gifted and brilliant qualities, of rare social virtues, and goodness of heart.

*Resolved*, That in all the relations of life he has shown himself a man of generous nature, a sincere friend, a faithful husband, and an indulgent father.

*Resolved*, That we tender to his family—father, mother, sister, brothers, widow, and children—our condolence for the loss they have sustained by his death, and that a copy of these resolutions be transmitted to them by the officers of this meeting as indicative of our sorrow for them in this hour of sudden affliction.

*To Readers and Correspondents.*—The Editor will be happy to receive early intelligence of local events of general medical interest, or which it is desirable to bring to the notice of the profession. Local papers containing reports or news items should be marked.

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